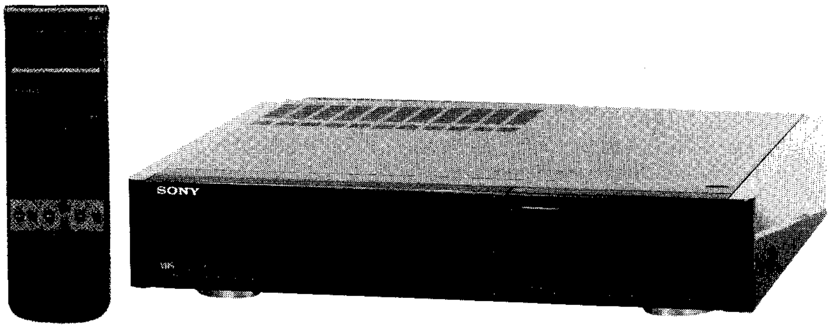
SLV-777/AS/NC/UB/VP
RMT-V5B

AEP, E Model
SLV-777
Australian Model
SLV-777AS
AEP, New Zealand Model
SLV-777NC
UK Model
SLV-777UB
ME, Germany Model
SLV-777VP



This photo is SLV-777.

- **Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENT II for MECHANICAL ADJUSTMENTS. (9-972-816-11)**

SPECIFICATIONS

System

Format	VHS PAL standard
Video recording system	Rotary two-head helical scanning FM system
Video signal	PAL colour (System B and G: SLV-777/777AS/777NC/777VP, System I: SLV-777UB) DDR SECAM colour (SLV-777VP) CCIR monochrome signals 625 lines
Tape speed	SP: 23.39 mm/sec. LP: 11.70 mm/sec.
Maximum recording/playback time	SP: 4 hours (with E-240) LP: 8 hours (with E-240)
Fast-froward/rewind time	Approx. 4 min. 20 sec. (with E-195)
High speed rewind time	Approx. 2 min. 50 sec. (with E-195)

Tuner Section

Tuner system (audio)	Intercarrier system
Channel coverage	SLV-777/777AS/777NC/777VP VHF channels E2 – E12 (channels A to H for Italy) CATV channels S01 – S05 CATV channels S1 – S20 HYPER S21 – S41 UHF channels E21 – E69 SLV-777UB UHF channels B21 – B68
RF output signal	SLV-777/777AS/777NC/777VP UHF channels E30 – E39 (adjustable) SLV-777UB UHF channels B30 – B39 (adjustable)
Aerial input	75-ohms asymmetrical aerial socket

Inputs and Outputs

Video inputs	LINE IN 2: phono jack (1) EURO-AV (LINE 1) and (LINE 3): 21-pin (pin 20) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio inputs	LINE IN 2: phono jacks (2) 47 kilohms, –7.5 dBs (0 dBs = 0.775 V rms) EURO-AV (LINE 1) and (LINE 3): 21-pin (pins 2 and 6) More than 10 kilohms, –4 dBs
Video outputs	LINE OUT: phono jack (1) EURO-AV (LINE 1): 21-pin (pin 19) 1 Vp-p, 75 ohms, unbalanced, sync negative

– Continued on next page –

VHS VIDEO CASSETTE RECORDER

SONY®

Audio outputs	LINE OUT: phono jacks (2) –7.5 dBs at load impedance: 47 kilohms Output impedance: less than 10 kilohms EURO-AV (LINE 1): 21-pin (pins 1 and 3) Output impedance: less than 1 kilohm –4 dBs with 10 kilohm load
CONTROL S IN	Minijack (1)
CONTROL S OUT	Minijack (1)
CONTROL L	5-pin DIN (1)
Microphone input	Minijack (1) Input impedance: –60dBs for low impedance microphone
Headphone input	Stereo minijack (1) Impedance more than 8 ohms Output 45mW (8 ohms)

Timer Section

Clock	Quartz locked
Time indication	24-hour cycle
Timer setting	Only for recording 8 programmes in one month at max.
Timer back-up	Built-in self-charging capacitor Back-up duration: Up to 3 hours at one time

General

Power requirements	240 V AC, 50 Hz (SLV-777UB) 220 V AC, 50 Hz (SLV-777/777AS/777NC/777VP)
Power consumption	35 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	–20°C to 60°C (–4°F to 140°F)
Dimensions	466 × 96.5 × 395 mm (w/h/d) (18$^{3}/_{8}$ × 3$^{7}/_{8}$ × 15$^{5}/_{8}$ inches)
Weight	SLV-777/777AS/777VP: 7.9 kg (17 lb 7 oz) SLV-777UB/777NC: 8.1 kg (17 lb 14 oz)

Wireless Commander RMT-V5B

Remote control system	Infrared control
Command mode	VTR 1/2/3
Power requirements	3 V DC, two IEC designation R6 batteries
Dimensions	75 × 45 × 235.5 mm (w/h/d) (3 × 1$^{13}/_{16}$ × 9$^{3}/_{8}$ inches)
Weight	Approx. 240g (8$^{1}/_{2}$ oz) excluding batteries

Accessories Supplied

Wireless Remote Commander RMT-V5B with two R6 batteries
75-ohm coaxial cable (1)
Video/audio connecting cable (1)
Screwdriver for RF channel adjustment (1)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splasher and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SERVICE NOTE

1. RETURNING PINCH ROLLER, GUIDE ROLLER AND ELEVATOR CAM TO STOP CONDITION

1) Remove the bottom panel.
2) Turn the worm gear Ⓐ of the cam motor, located at lower of the MD (between the front panel and the MD-49 board), to the arrow direction Ⓑ by finger.

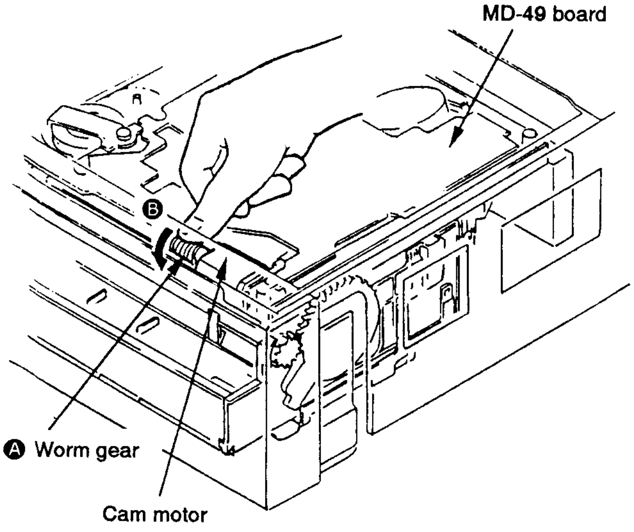

MD-49 board
Ⓑ
Ⓐ Worm gear
Cam motor

Fig. 1.

2. WINDING TAPE TO CASSETTE HALF

Turn the fly wheel Ⓐ of the capstan motor to the arrow direction Ⓑ by finger, then the cassette tape will be wound to the cassette half.

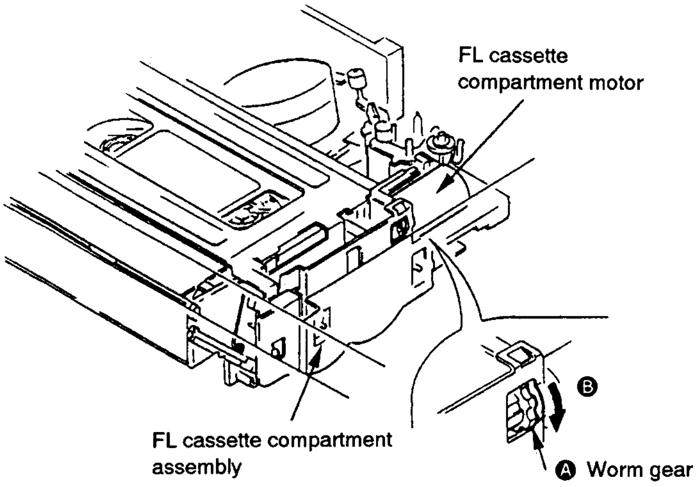

FL cassette
compartment motor
Ⓑ
FL cassette compartment
assembly
Ⓐ Worm gear

Fig. 2.

3. TAKING OUT CASSETTE WHEN UNIT IS DEFECTIVE WITH CASSETTE IN

1) Remove the upper case.
2) Turn the worm gear Ⓐ of the FL cassette compartment motor to the arrow direction Ⓑ by finger.

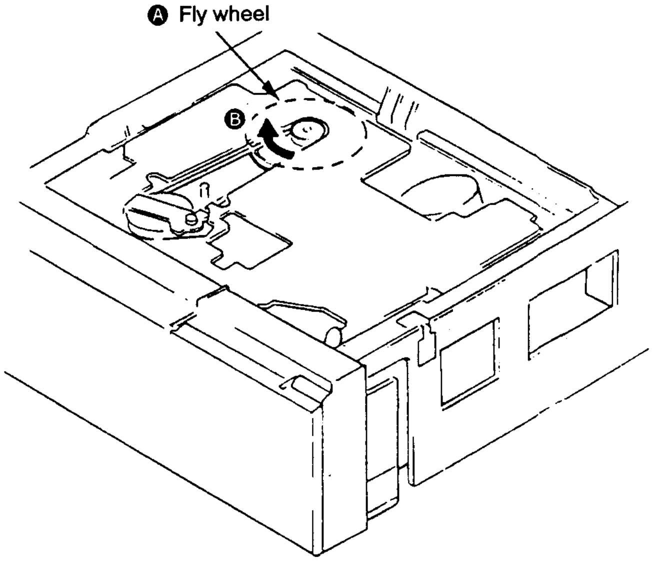


Fig. 3.

Note: When performing 1. to 3., be careful not to clog and damage the cassette tape.

4. UPPER DRUM REPLACEMENT

4-1. Removal of Upper Drum

1) Remove the screw ❶ (P3×5) and take out the grounding shaft ❷. (See Fig. 4.)
2) Completely remove the rotary upper drum board and desolder the soldering indicated by the arrows (16 points).
3) Remove two screws ❸ (PSW3×8) and take out the rotary upper drum in the arrow direction Ⓐ. (See Fig. 5.)
   If it is difficult, remove by shaking the rotary upper drum gradually.

Note: If the drum can not be removed, check whether the solders have been removed or not again.

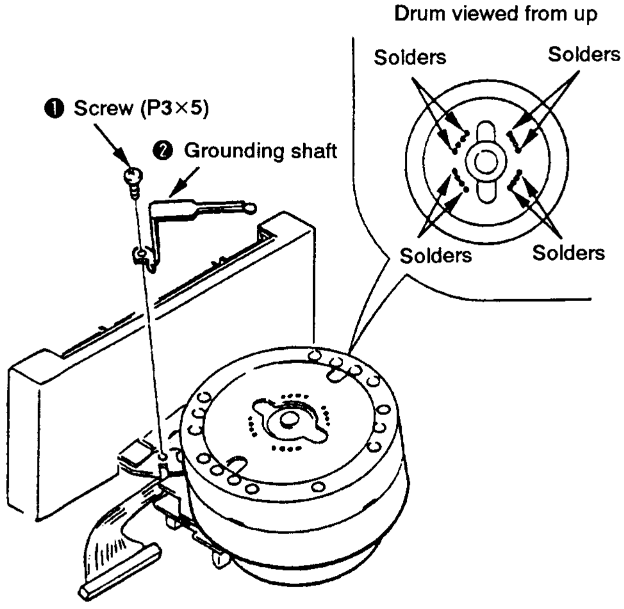


Fig. 4.

4-2. Mounting Upper Drum

1) When inserting the rotary drum into the lower drum, be careful not to blur the contacting surface with fingerprint or the like.
2) Mount the rotary upper drum board by aligning SP1 with S1 of rotary transformer board (lower drum) so that the screw holes of both upper and lower drums match. (See Fig. 5.)
3) If it is difficult, mount the upper drum by shaking it gradually.
   Note: Be careful not to damage the head. Make sure that the upper drum is tightly inserted.
4) Tighten two screws ❸ (PSW3×8). (See Fig. 5.)
   Note: Temporary tighten two screws. After making sure that upper drum is tightly inserted, tighten the screws.
5) Solder 16 points on the board of the rotary upper drum.
6) Fix the grounding shaft ❷ using the screw ❶ (P3×5) so that the protrusion of grounding shaft end contacts the center of the drum shaft.
   Note: When attaching the grounding shaft ❷, be careful not to apply force to the spring section of it.

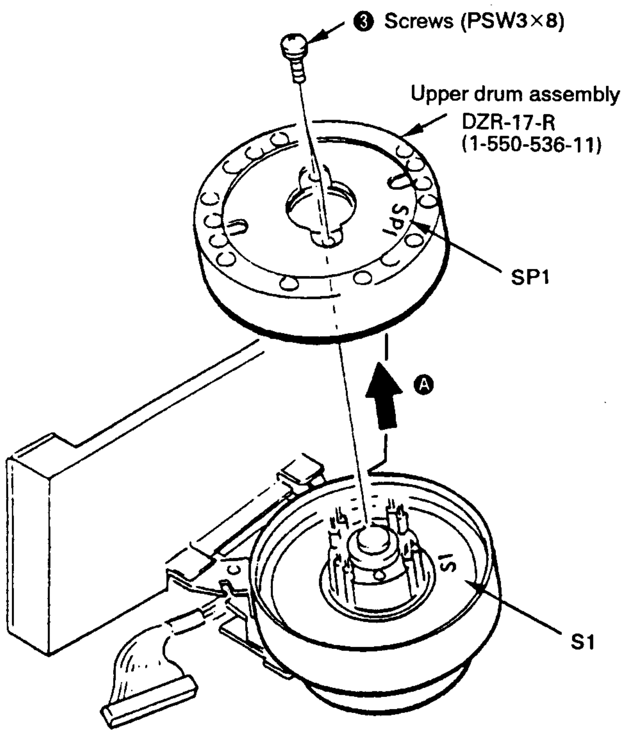


Fig. 5.

TABLE OF CONTENTS

Section Title Page

1. GENERAL

Warning 7
About Tis Manual 7
Precaution 7
Main Features 7
Identifying the Operational Parts 8
Connections 12
Remote Control Operation 12
Date and Clock Setting 13
Adjusting the TV 14
Presetting the Active Channels 15
Handling Video Cassette 17
Playback 17
Recording TV Programmes 25
Recording Stereo/Bilingual Programmes 27
Use of the Tape Counter 29
Timer Activated Recording 30
Quick Timer Recording 35
Index Function 36
Audio Recording 38
Tape Editing 39
Synchronized Editing — Editing with a VTR Equipped with a Sony Control Terminal 41
Synchronized Editing — Connection 42
Synchronized Editing — Operation 43
Manual Editing — Editing with a VTR not Equipped with a Sony Control Terminal 44
Insert Editing 44
The Menu System 46

2. DISASSEMBLY

2-1. Removal of Front Panel and Cabinet Assembly 47
2-2. Removal of Door Block Assembly 47
2-3. Removal of Control Switch Block 47
2-4. Opening of MA-62 Board 48
2-5. Removal of MF-94 Board and Terminal Board Block Assembly 48
2-6. Removal of TU-120, HF-9, PI-20, CG-10 Boards and DG Block Assembly 49
2-7. Removal of NC Block Assembly (SLV-777UB/NC Only) 49
2-8. Removal of FL Cassette Compartment Assembly 49
2-9. Removal of MF-101 Board and Mechanism Deck Block Assembly 50
2-10. Removal of VI-97, YC-65 Boards and Switching Block 50

3. DIAGRAMS

3-1. Circuit Boards Location 51
3-2. Overall Block Diagram 52
3-3. Video (1) Block Diagram 55
3-4. Video (2) Block Diagram 59
3-5. Digital Picture Block Diagram 63
3-6. Servo, System Control Block Diagram 65
3-7. System Control — Video Block Interface...68
3-8. System Control — Servo Peripheral Circuit Interface 69
3-9. System Control — Mechanism Block Interface 71
3-10. System Control — System Control Peripheral Circuit Interface 73
3-11. System Control — Audio Block Interface 73
3-12. Audio Block Diagram 75
3-13. Timer, Tuner, Mode Control Block Diagram 79
3-14. Tuner Block Diagram 81
3-15. NICAM Block Diagram 83
3-16. NICAM (Near Instantaneous Compand System) (SLV-777NC/UB Only) 86
  3-16-1. NICAM Standard 86
  3-16-2. NICAM Receiving System 86
  3-16-3. Description of NA-7 Board (NICAM Decoder) 86
3-17. Power Block Diagram 89

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. Frame Schematic Diagram 91
4-2. Printed Wiring Boards and Schematic Diagrams 96
- RP-63 Board 96
- YC-65, SD-4, VI-97 Boards 102
- PI-20, CG-10 Boards 110
- DG-11, DI-43 Boards 117
- MA-62 (Servo, System Control, Audio), SI-10, VP-24 Boards 125
- MA-62 (Servo, System Control) Board 133
- MD-49 Board 141
- HF-9 Board 149
- IO-40 Board 153
- MF-94, RM-42 Boards 157
- MF-101, TK-12, JS-20, Switch Block Boards 164
- NA-7, NM-1 Boards 172
- TU-120 Board 179

4-3. Semiconductors 183

Section Title Page

5. EXPLODED VIEWS

5-1. Front Panel and Cabinet Assemblies ········· 184
5-2. Power Supply Block Assembly ········· 185
5-3. Main Boards Assembly ········· 186
5-4. FL Cassette Compartment Assembly ········· 187
5-5. Mechanism Chassis Assembly (1) ········· 188
5-6. Mechanism Chassis Assembly (2) ········· 189
5-7. Mechanism Chassis Assembly (3) ········· 190

6. ELECTRICAL PARTS LIST ········· 191

HARDWARE LIST ········· 221

7. ELECTRICAL ADJUSTMENTS

7-1. Pre-adjustment Preparations ········· 222
7-1-1. Instruments to be Used ········· 222
7-1-2. Connection ········· 222
7-1-3. Setup for Adjustment ········· 222
7-1-4. Alignment Tape (MH-2) ········· 222
7-1-5. Specified I/O Level and Impedance ········· 223
7-1-6. Operating Method When the Front Panel Removed ········· 223
7-1-7. Adjusting Sequence ········· 223
7-2. Power Supply Check (Power Block) ········· 223
7-3. System Control Adjustment ········· 224
7-3-1. Clock Adjustment (MF-94 Board) ········· 224
7-4. Servo System Adjustment ········· 224
7-4-1. Switching Position Adjustment (MA-62 Board) ········· 224
7-5. Video System Adjustments ········· 225
7-5-1. Playback Y Signal Level Adjustment (YC-65 Board) ········· 225
7-5-2. Y Signal NR Level Adjustment (YC-65 Board) ········· 225
7-5-3. Sync AGC Adjustment (YC-65 Board) ········· 225
7-5-4. Sync Tip Carrier Set and Deviation Adjustment (YC-65 Board) ········· 226
7-5-5. White Clip, Dark Clip Adjustment (YC-65 Board) ········· 226
7-5-6. Recording Y Signal Level Adjustment (YC-65 Board) ········· 226
7-5-7. Recording Chroma Level Adjustment (YC-65 Board) ········· 227
7-5-8. PAL JOG AFC Adjustment (YC-65 Board) ········· 227
7-5-9. 0.5H CCD Level Adjustment (YC-65 Board) ········· 227
7-5-10. SECAM Discrimination Adjustment (YC-65 Board) ········· 227

Section Title Page

7-6. Digital Picture and Character Generator System Adjustments ········· 228
7-6-1. AGC Adjustment (PI-20 Board) ········· 228
7-6-2. Read Clock Adjustment (DG-11 Board) ········· 228
7-6-3. Write Clock Adjustment (DG-11 Board) ········· 228
7-6-4. TINT Adjustment (DG-11 Board) ········· 229
7-6-5. Clamp Level Adjustment (DG-11 Board) ········· 229
7-6-6. Hue and Color Level Adjustment (DG-11 Board) ········· 229
7-6-7. Character Generator Clock Check (CG-10 Board) ········· 229
7-6-8. AFC Adjustment (CG-10 Board) ········· 229
7-6-9. Character Position Adjustment (CG-10 Board) ········· 230
7-7. Audio System Adjustments ········· 230
7-7-1. Hi-Fi Audio System Adjustment ········· 230
7-7-2. Normal Audio System Adjustment ········· 232
7-8. Tuner System Adjustments ········· 234
7-8-1. RF AGC Adjustment (IF001 Unit/TU-120 Board) ········· 234
7-8-2. Receive Separation Adjustment (TU-120 Board) (SLV-777/NC/VP) ········· 234
7-9. NAICAM System Adjustments (SLV-777UB/NC) ········· 234
7-9-1. Eye Pattern Adjustment (NA-7 Board) ········· 234
7-9-2. VCO Adjustment (NA-7 Board) ········· 234
7-10. Adjustment Parts Arrangement Diagram ········· 236

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

NOTICE FOR THE CUSTOMERS IN THE UNITED KINGDOM

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.

About This Manual

This manual includes information on four video cassette recorders, the SLV-777, SLV-777UB, SLV-777VP and SLV-777NC. First, refer to the model name indicated on the front and rear panels and check what your model is. Any differences in appearance or operation of the four VTRs are clearly indicated in the text, for example, **"For SLV-777 only."** However, note that the illustrations used in this manual are those of the SLV-777VP.

■ On colour systems of SLV-777/777UB/777NC
This unit is designed to record and play back using the PAL colour system. Recording and playback of video sources based on other colour systems cannot be guaranteed.

■ On colour systems of SLV-777VP
This unit is designed to record and play back the PAL and DDR SECAM colour systems. Recording and playback of video sources based on other systems cannot be guaranteed.

Caution
Television programmes, films, video tapes and other materials may be copyrighted.
Unauthorized recording of such materials may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.

Precautions

On Safety

- For SLV-777UB, operate on 240 V AC, 50 Hz. For SLV-777, SLV-777VP and SLV-777NC, operate on 220 V AC, 50 Hz.
- Should anything fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- If the unit will not be used for an extended period, unplug it from the wall outlet. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The unit is not disconnected from the mains (AC power source) as long as it is connected to the mains outlet, even if the unit itself has been turned off.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies, etc.) that may block the ventilation holes.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place any heavy object on the unit.

On Operation

- When the unit is not in use, turn the power off to conserve energy and to extend its life.
- Remove and store video cassettes after recording or playback.
- Store the cassettes in their cases and keep them in an upright position to prevent intrusion of dust and uneven winding.

On Cleaning

- Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth slightly moistened with a mild detergent solution.
- Do not use any type of solvents, such as alcohol or benzine, which might damage the finish.

On Repacking

- Do not throw away the carton and packing materials. They make an ideal container to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

If you have any questions about the unit, contact your Sony service facility.

Main Features

For Editing

- Edit monitor function allows easier editing by displaying both the edit source picture and the picture to be edited on the TV screen.
- Flying erase head allows smooth transition between two recordings.
- Synchronized editing either from or onto this VTR is possible.
- Two kinds of remote control terminals, CONTROL L and CONTROL S IN jacks, allow this VTR to be remotely controlled by other equipment involved in tape editing.
- Video/audio input jacks on the front panel offer easy connection to other VTRs.

On-screen Displays

- Information on the tape counter, tape speed, remaining tape length and present date and time, can be displayed on the TV screen.
- Auto menu can be displayed to set the VTR to the desired automatic tape operation.
- Auto repeat function allows playing back the desired portion of the tape repeatedly.
- P in P (picture in picture) function allows watching a small TV picture in the playback picture and vice versa.
- Information on the pre-selected timer recording programmes can be called up on the screen with a press of the button.

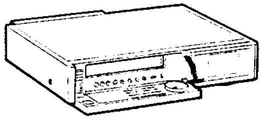
Convenient Functions

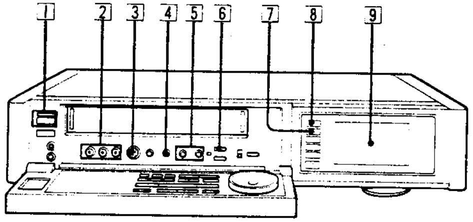
- Auto tracking function automatically adjusts the tracking condition for maximum picture and sound quality.
- JOG/SHUTTLE on the VTR or the Remote Commander and SHUTTLE EDIT on the Commander allow quick access to the desired scene.
- The wireless Commander with liquid crystal display (LCD) provides access to almost all of the VTR controls and makes timer setting easy.
- Timer recording can be set for up to eight programmes within one month in advance.
- The beginning of the desired scene can be located easily with the index scan/index search function.
- The NICAM broadcast (stereo/bilingual programmes in the United Kingdom and Nordic countries) can be received. (SLV-777UB/777NC only)

High-quality Picture

- Sharp, finely detailed pictures are possible through the use of High Quality (HQ) picture technology.
- **HQ**
  Video Cassette Recorders (VTR) with this marking incorporate VHS high-quality picture technology and are compatible with any video cassette recorders bearing the VHS mark.

Identifying the Operational Parts





Front

1. **ON/STANDBY switch and indicator**

2. **LINE IN 2 VIDEO/AUDIO jacks**

3. **⏚ CONTROL L connector (5-pin DIN type)** (page 72)
   Connect to the CONTROL L connector of other Sony product for systematic operations such as synchronized editing.

4. **SHARPNESS (SOFT/SHARP) control**
   Use to adjust the sharpness of the picture.

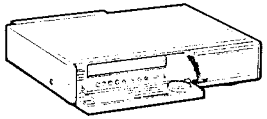
5. **REC LEVEL controls** (page 67)
   Adjust the audio recording level. Normally set these controls at the center indented position.

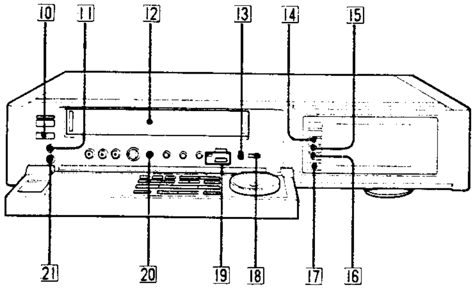
6. **EDIT MONITOR button** (page 76, 78, 80)
   Press to display the picture selected with the INPUT SELECT button and that being recorded on this VTR simultaneously.

7. **EDIT MONITOR indicator**

8. **AUTO TRACKING indicator** (page 26)

9. **Display window**





Front

10. **⏏ EJECT button**
    Press to eject the cassette. This button does not function during recording.

11. **MIC jack (mini type)**
    Connect a microphone.

12. **Cassette compartment** (page 24)

13. **COMMAND MODE selector** (page 16)
    Set to the same position as the COMMAND MODE button on the Commander.

14. **AUDIO INSERT indicator**

15. **VIDEO INSERT indicator**

16. **◀◀◀ (high speed rewind) indicator**

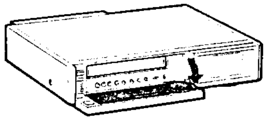
17. **Remote sensor**
    Point the Commander here.

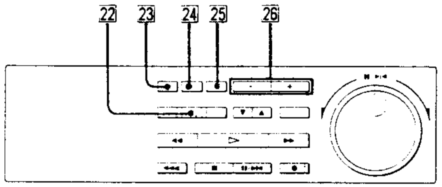
18. **VPS (Video Programme System) ON/OFF switch (SLV-777VP only)**
    (page 59)

19. **SYNCHRO EDIT button and indicator**
    (page 76, 77)
    Press to perform synchronized editing.

20. **PHONE LEVEL (headphone level) control**

21. **PHONES (headphones) jack (stereo mini type)**





Front

22 **TIMER REC ON/OFF button**
Press to deactivate or reactivate the timer recording standby mode when using the VTR before timer recording.

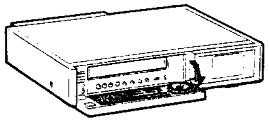
23 **TV/VTR button** (page 43)
Press and light the VTR indicator in the display window to view the playback of the VTR or a programme selected on the VTR. Press this button again to turn off the VTR indicator to view a programme selected on the TV. This button is effective only when the VTR is connected to the TV via the EURO-AV (LINE 1) connector.

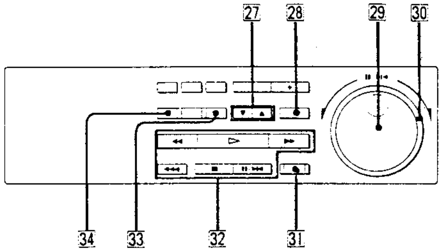
24 **INPUT SELECT button** (page 20, 40)
Press to select the signals to be recorded by the VTR. The selected mode will be indicated in the display window as follows:

TUNER:	To record TV programmes.
SIMUL:	To record TV programmes and audio signals from equipment connected to the EURO-AV (LINE 1) connector or the LINE IN 2 jacks simultaneously.
LINE L1:	To record the signals from equipment connected to the EURO-AV (LINE 1) connector.
LINE L2:	To record the signals from equipment connected to the LINE IN 2 jacks.
LINE L3:	To record the signals from equipment connected to the EURO-AV (LINE 3) connector.

25 **REC MODE SP/LP button** (page 40)
Press to select the recording tape speed. SP or LP.

26 **PROGRAM +/– buttons**
Press to select the programme positions.





Front

27 **TRACKING NORMAL/SLOW and STILL ADJUST buttons** (page 26. 28)
Press either of the buttons to clear streaks that may appear on the screen when playing back tapes in normal or slow speed or to reduce picture shaking in still mode.

28 **TRACKING AUTO/MANUAL button** (page 26)
Press to reactivate the automatic tracking function after manual tracking adjustment.

29 **JOG dial** (page 28. 40, 41)

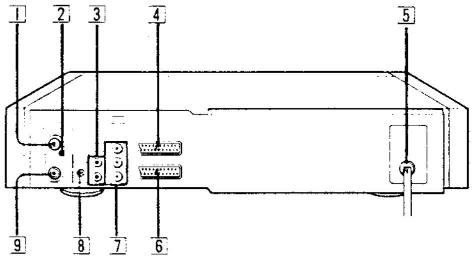
30 **SHUTTLE ring (FORWARD/REVERSE)** (page 28. 41)

31 **● REC (record) button** (page 40)

32 **Tape transport buttons** (page 25. 27)
◄◄ REW (rewind) button
▷ PLAY button
►► FF (fast-forward) button
■ STOP button
❚❚ ►◄ PAUSE/STILL button
◄◄◄ HIGH SPEED REWIND button

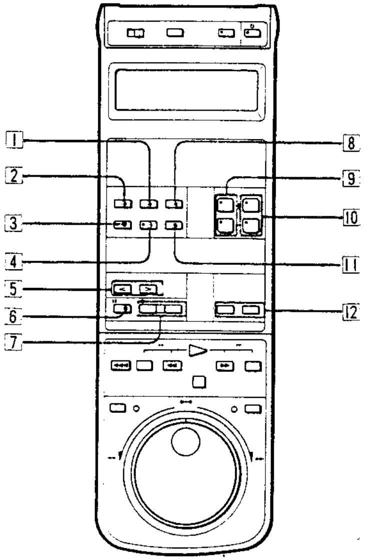
33 **QUICK TIMER button** (page 61)
Press to activate the quick timer recording function.

34 **EDIT ON/OFF button** (page 69)
Nomally keep this button at OFF (i.e. the EDIT indicator is off in the display window). When using this VTR for editing, press this button to light the EDIT indicator.



Rear

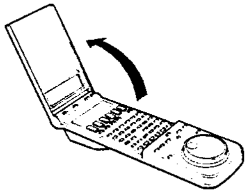
1. **AERIAL IN socket** (page 14)
2. **DX/LOCAL switch**
   Normally set to DX. If the TV signal is very strong, set it to LOCAL.
3. **CONTROL S IN/OUT jacks (minijack)** (page 74, 75)
   Connect to the CONTROL S output/input jack of other Sony product for systematic operations such as synchronized editing or remote control operation.
4. **⊖ EURO-AV (LINE 1) connector (21-pin)** (page 14)
   The on-screen display is available via this connector.
5. **AC power cord**
6. **⊖ EURO-AV (LINE 3) connector (21-pin)** (page 74)
7. **LINE OUT VIDEO/AUDIO jacks (phono type)** (page 14, 71)
   The on-screen display is not available via these jacks.
8. **RF CHANNEL screw (30 to 39)** (page 19)
9. **AERIAL OUT socket** (page 14)

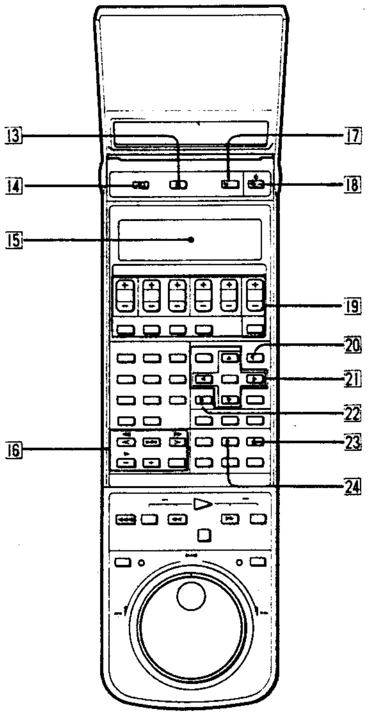


Remote Commander RMT-V5B

- The buttons on the Commander with the same name or mark as those on the VTR have the same function.
- The buttons with a red dot inscribed on top can be used to remotely control Sony TVs with the ▣ mark when the TV / VTR remote control selector is set to TV.
- Keep the upper cover closed except where noted.

1. **TIMER ON SCREEN button** (page 53)
   Press to display the timer settings on the TV screen.
2. **EDIT MONITOR button** (page 76, 78, 80)
3. **DATA SCREEN button** (page 33)
4. **AUDIO MONITOR button** (page 29, 45, 46)
5. **SHUTTLE EDIT buttons** (page 41)
6. **II PAUSE button**
7. **● REC (recording) buttons**
   Press two buttons simultaneously.
8. **INDEX button** (page 64, 65, 66)
9. **VOL (TV volume) +/– buttons**
   Press to control the volume of the TV. Effective only for Sony TVs with the ▣ mark.
10. **PROG (programme) +/– buttons**
11. **COUNTER RESET button** (page 48)
12. **AUDIO/VIDEO INSERT buttons** (page 80)





Remote Commander RMT-V5B

13 **TIMER REC (ON OFF) button**

14 **TV / VTR remote control selector** (page 16)
Set to VTR to control this VTR and set to TV to control the TV.

15 **Liquid-crystal display**

16 **Various speed playback buttons** (page 27)
< ◀II II▶ > (to select the direction for frame-by-frame picture or the direction for any playback mode)
▶◀ (to obtain a still picture)
I▶ SLOW +/– (slow speed up/down)
× 2 (double speed playback)

17 **TV VTR button** (page 43)

18 ⏻ **(on standby) button**

19 **Timer recording clock set buttons** (page 17, 50)

20 **COMMAND MODE button** (page 16)

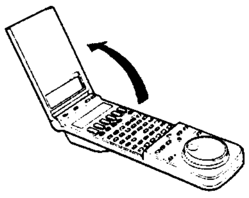
21 **Menu operation buttons**
Press MENU to display or erase the main MENU. Press EXE to store the selected parameters.
Press ▲/▼/◀ ▶ to move the cursor.

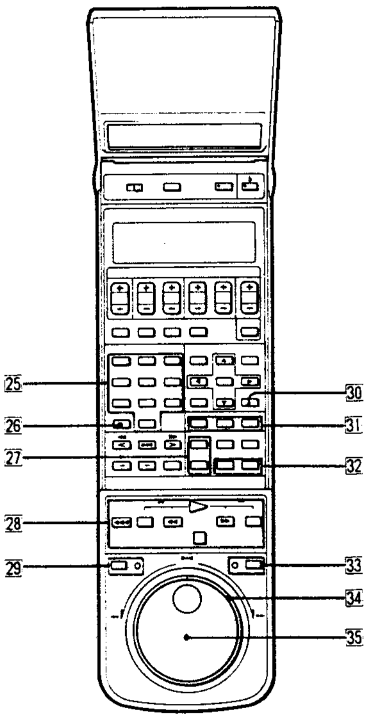
22 **FUNCTION MEMORY button** (page 37)

23 **INPUT SELECT button** (page 40, 52, 70, 76, 78)

24 **REC MODE select button** (page 40)

Note on the TV / VTR remote control selector
When you set the TV / VTR remote control selector on the Remote Commander to TV, the TV/VTR button cannot operate some Sony TV's.





Remote Commander RMT-V5B

25 **Programme position number buttons**
Press to select the programme position directly.

26 **– / – – (10's digit) button**
Press to select a programme number over 9. To select 23, press –/– –, then 2 and 3.

27 **TIMER CHECK/TIMER CLEAR buttons** (page 54)
Press to check, correct, or clear the timer settings.

28 **Tape transport buttons** (page 25, 27)
⧏ / ⧐ SEARCH (reverse/forward)
◀◀ REW (rewind)
▶ PLAY
▶▶ FF (fast-forward)
■ STOP
◀◀◀ HIGH SPEED REW

29 **JOG SHUTTLE function button and indicator** (page 28)
Press to light the indicator to use JOG SHUTTLE for various playback modes.

30 **TV SCAN button** (page 32, 44)

31 **P in P (picture in picture) buttons** (page 31)
P in P to display the subsidiary picture.
SHIFT to change the position of the subsidiary picture.
DIGITAL OFF to turn off the subsidiary picture.

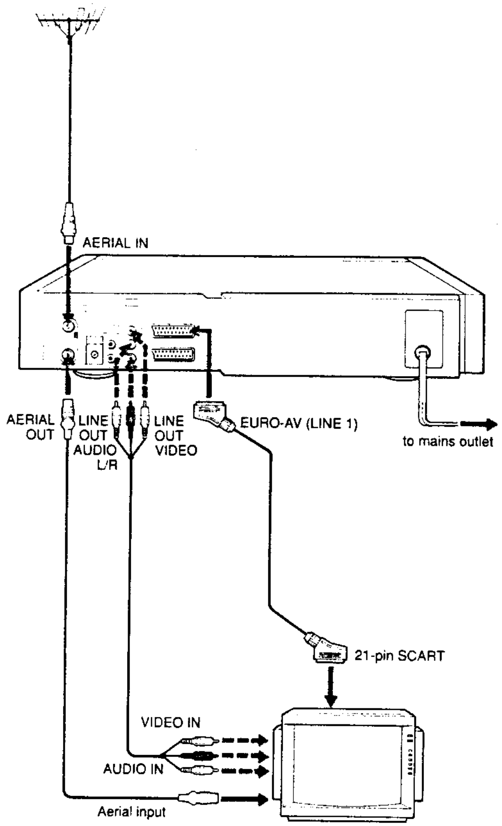
32 **INDEX MARK and ERASE buttons** (page 63, 66)

33 **PROG (programme) function button and indicator** (page 21, 40)
Press to light the indicator to use JOG for selection of the programme position.

34 **SHUTTLE ring** (page 28)

35 **JOG dial** (page 21, 28, 40)

Connections



Before You Begin

- Turn off the power to the VTR and TV.
- Do not connect the mains lead until all of the connections are complete.
- Connect firmly since a loose connection may cause picture distortion.

Using the AERIAL IN/OUT Sockets

1 **Connect the aerial to the AERIAL IN of this VTR.**

2 **Connect the AERIAL OUT of this VTR to the aerial input terminal of the TV using the supplied aerial cable.**

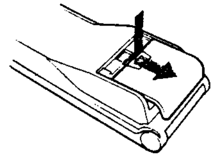
Additional Connections for Higher Picture Quality

■ **Using the EURO-AV connector**
If your TV is equipped with a 21-pin SCART connector, connect it to the VTR's EURO-AV (LINE 1) connector using the optional VMC-2121CE cable to view a higher quality picture.

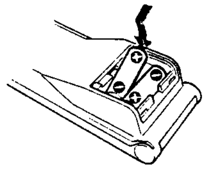
■ **Using the LINE OUT VIDEO/ AUDIO jacks**
If your TV is equipped with video/audio input jacks, connect it to the VTR's LINE OUT VIDEO/AUDIO jacks using the supplied video/audio connecting cable to view a higher quality picture. **Note that the on-screen display will not be available if connection is made via these jacks.**

Remote Control Operation

1



2



Preparing the Commander

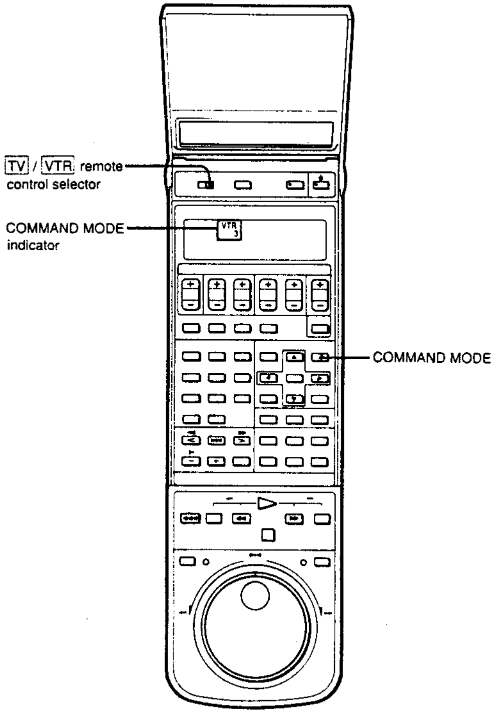
■ **Battery insertion**

1 **Slide and remove the cover.**

2 **Insert two R6 (size AA) batteries with polarity positioned correctly.**

3 **Close the cover. The clock on the Commander will read – D –:– –. Set the date and clock referring to the "Date and Clock Setting" (page 17).**

Note on batteries
With normal operation, batteries will last for about three months. However, if the Commander will not be used for a long period, remove the batteries to avoid possible damage from battery leakage.



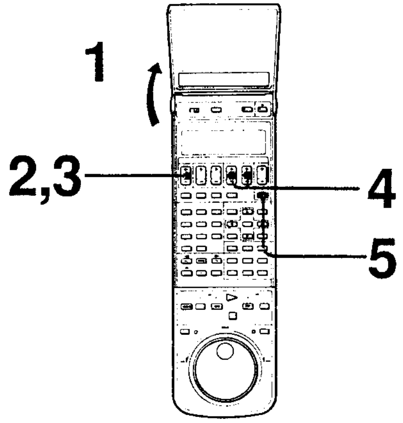
Command Mode Setting

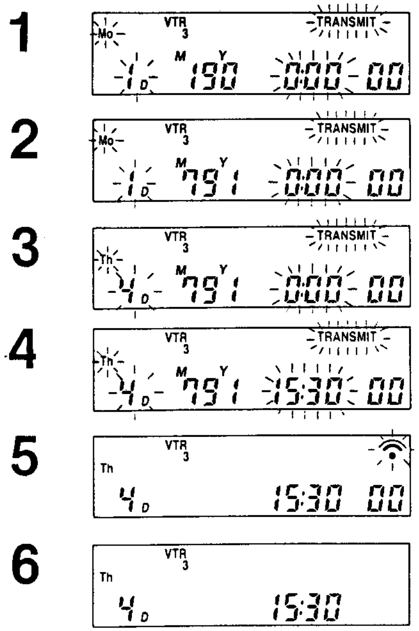
Set the COMMAND MODE 1/2/3 selector on the VTR to the same number displayed in the LCD. To change the setting on the Commander, press COMMAND MODE repeatedly. Then, set the TV / VTR remote control selector to VTR.

Remotely Controlling Other Sony Equipment

- **Controlling another VTR equipped with a command mode selector**
  Set different command mode for this VTR (VTR 3, for instance) and the other VTR (VTR 1). Select VTR 1 on the Commander to control the other VTR and VTR 3 to control this VTR.
- **Controlling equipment without a command mode selector**
  Change the setting on the Commander as follows to control each type of VTR.
  VTR 1: Sony Betamax infrared remote control VTRs
  VTR 2: Sony 8 mm format VTRs
  VTR 3: This VTR

Date and Clock Setting





Before You Begin

The time and date between the years 1990 and 2005 can be set with the Commander.

Operation

Example: To set to 15:30, Thursday, July 4, 1991.

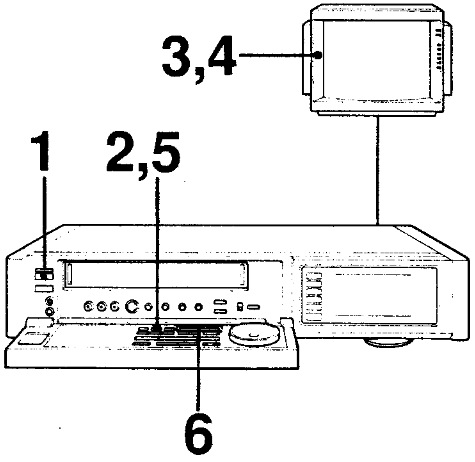
1. **Open the cover.**
2. **Keep pressing the D (date) button until 7 M 91 Y is displayed.**
   The date will be incremented slowly up to 30 days and then the month will be incremented.
3. **Press the + side or – side of the D (date) button until 4 D is displayed.**
   The day of the week appears automatically.
4. **Press the H (hour) and M (minute) buttons under TURN OFF to set the current time.**
5. **Point the Commander at the VTR and press TRANS (transmit).**
   A beep sound confirms that the date and clock setting is registered in the VTR as well.
6. **Check the display window on the VTR and close the cover.**

To correct the preset date and time
Open the cover, press CLOCK SET and repeat steps **2** to **6**.

When 0:00 is blinking on the VTR
Any time power is interrupted for more than three hours, you will see 0:00 blinking when power is restored. You will have to re-set the date and clock again.

When a short beep sounds repeatedly
The VTR is in the timer recording or quick timer recording mode or standby mode for timer recording and the setting cannot be transmitted.

Adjusting the TV



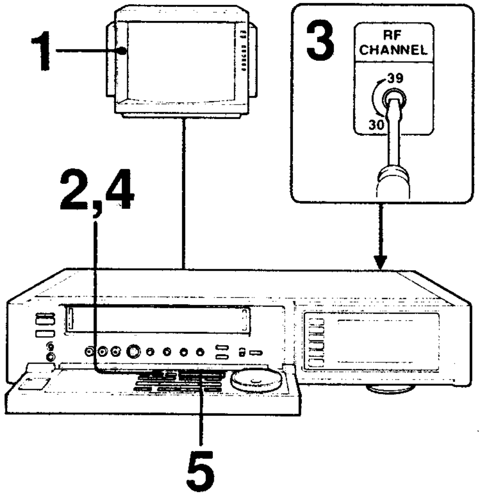
Before You Begin

If you have connected your VTR and TV using only the aerial sockets, one of the television programme positions must be adjusted to receive the VTR's playback signal. If TV-VTR connection is made by other means, skip this step.

Operation

1. **Make connections referring to "Connections" and press ON/STANDBY.**
2. **Press INPUT SELECT to light LINE L2 in the display window.**
   Do not connect any equipment to the LINE IN 2 VIDEO jack.
3. **Turn on the TV and select a programme position that is not used to receive a TV station.**
4. **Tune the TV so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**
5. **Press INPUT SELECT to light TUNER in the display window.**
6. **Press PROGRAM +/– on the VTR and check that the screen changes to a different programme.**

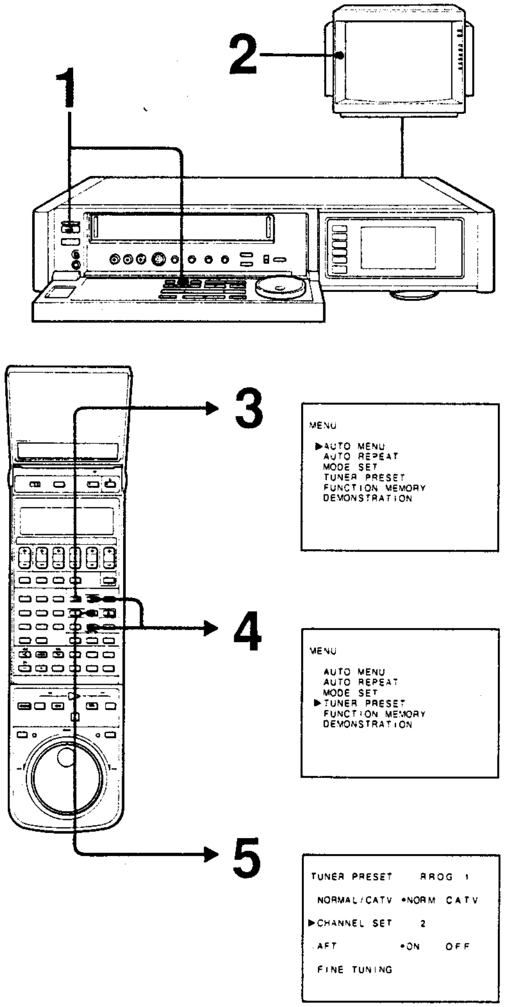
Now your TV is tuned to receive the VTR's playback picture. Whenever playing back a tape, select the programme position you chose in step 3.
If you are not sure how to tune your TV, refer to the TV's instruction manual or consult your dealer.



When the Playback Picture is not Free of Disturbance

1. **Select a programme position on the TV between UHF channels 30 and 39, so that the TV shows no picture and a steady rustling sound or no sound is heard.**
2. **Press INPUT SELECT to light LINE L2 in the display window.**
   Do not connect any equipment to the LINE IN 2 VIDEO jack.
3. **Turn the RF CHANNEL screw with the supplied screwdriver so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**
4. **Press INPUT SELECT to light TUNER in the display window.**
5. **Press PROGRAM +/– on the VTR and check that the screen changes to a different programme.**

Presetting the Active Channels


1
2
3
4
5
MENU
▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION
MENU
AUTO MENU
AUTO REPEAT
MODE SET
▶TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION
TUNER PRESET RROG 1
NORMAL/CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING

Before You Begin

- This VTR is capable of receiving VHF channels E2 — E12, UHF channels E21 — E69, and cable TV channels S1 — S41 and S01 — S05.
- The receivable channels are governed by the TV broadcasting system in your area.
- Up to 60 channels can be allocated to any desired programme position.
- The TUNER PRESET menu will not be displayed unless VTR-TV connection is made via the aerial sockets or EURO-AV (LINE 1).

To Call Up the TUNER PRESET Menu

1 **Turn on the VTR and press INPUT SELECT to light the TUNER indicator and the programme position number in the display window.**

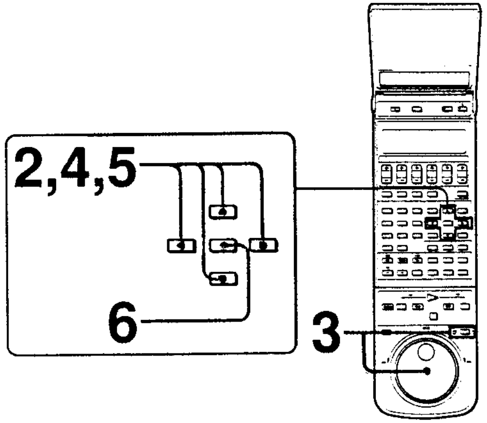
2 **Turn on the TV.**
Set to the programme position for the VTR if VTR-TV connection is made via the aerial sockets. Select VTR input if VTR-TV connection is made via EURO-AV (LINE 1).

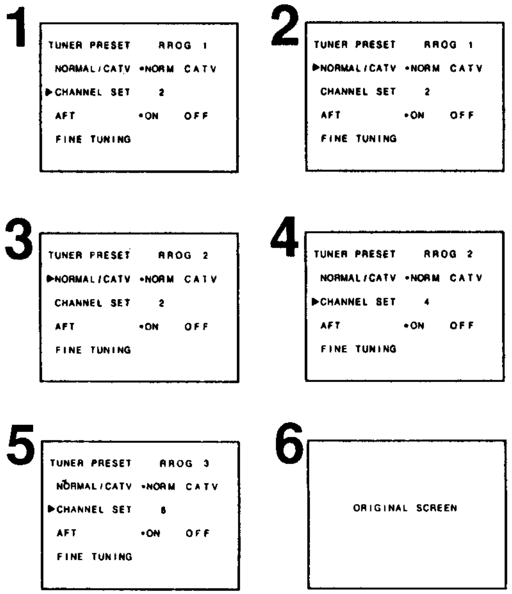
3 **Press MENU with the VTR in the stop mode.**
The main MENU appears.

4 **Move cursor with ▲ or ▼ to TUNER PRESET.**

5 **Press EXE.**
The TUNER PRESET menu appears.

Note for the users of SLV-777UB
The TUNER PRESET menu of the SLV-777UB does not have the NORMAL/CATV selection as illustrated.




1
TUNER PRESET RROG 1
NORMAL/CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING
2
TUNER PRESET RROG 1
▶NORMAL/CATV •NORM CATV
CHANNEL SET 2
AFT •ON OFF
FINE TUNING
3
TUNER PRESET RROG 2
▶NORMAL/CATV •NORM CATV
CHANNEL SET 2
AFT •ON OFF
FINE TUNING
4
TUNER PRESET RROG 2
NORMAL/CATV •NORM CATV
▶CHANNEL SET 4
AFT •ON OFF
FINE TUNING
5
TUNER PRESET RROG 3
NORMAL/CATV •NORM CATV
▶CHANNEL SET 6
AFT •ON OFF
FINE TUNING
6
ORIGINAL SCREEN

Tuning a Desired Channel

1 **Call up the TUNER PRESET menu.**

2 **Move cursor with ▲ to NORMAL /CATV and select NORM with ◀. (For SLV-777UB, skip this step.)**
To tune in CATV channels first, select CATV with ▶

3 **Select the desired programme position in any of the following ways:**
- **Press the PROG function button to light the indicator and turn JOG on the Commander.**
  Turn it clockwise for higher numbered programme positions; counterclockwise for lower numbered programme positions.
- **Press PROG +/– on the Commander or PROGRAM +/– on the VTR.**

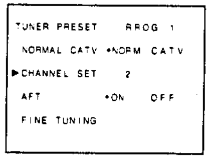
4 **Move cursor to CHANNEL SET with ▲ or ▼ and press ◀ or ▶.**
The channel number automatically increases with ▶ and decreases with ◀. The number stops changing when the first channel received in your area is detected.

5 **To allocate a channel to the next programme position, repeat steps 2 to 4.**

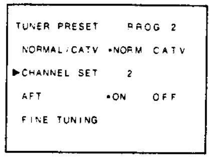
6 **Press EXE to store the allocated channels and return to the original screen.**

Channel scanning on your VTR
- When ▶ is pressed in steps **4** and **5**, the channels are scanned in the following order. When ◀ is pressed, the scanning order is reversed.
  VHF (E2—E12) → UHF (E21—E69) → CATV (S1—S20) → HYPER BAND (S21—S41) → CATV (S01—S05)
- The SLV-777UB only scans UHF channels B21 to B68.
- In Italy, channels 13 to 20 correspond to channels A to H.

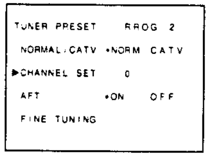
1


TUNER PRESET PROG 1
NORMAL CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING

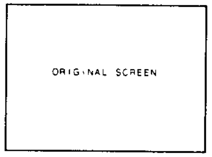
2


TUNER PRESET PROG 2
NORMAL/CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING

3


TUNER PRESET PROG 2
NORMAL/CATV •NORM CATV
▶CHANNEL SET 0
AFT •ON OFF
FINE TUNING

5


ORIGINAL SCREEN

Erasing Unwanted Programme Positions

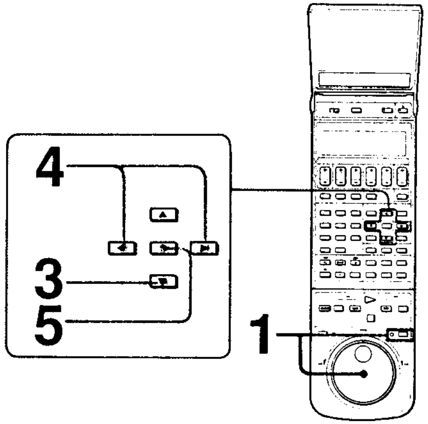
The VTR can be preset so that only the desired programme positions will appear when you press PROG +/– on the Commander or PROGRAM +/– on the VTR.

1. **Call up the TUNER PRESET menu.**
2. **Press PROG +/– on the Commander or PROGRAM +/– on the VTR to call up the unused programme position. You can also call it up using JOG on the Commander. Press the PROG function button to light the indicator and turn JOG.**
3. **Press programme position number button 0 twice or keep pressing ◀ or ▶ until 0 is displayed.**
4. **Repeat steps 2 and 3 to erase other programme positions.**
5. **Press EXE.**

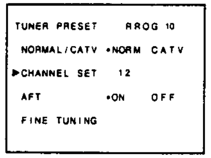
■ **To enter the erased programme positions again**
Follow the operations in "Tuning a Desired Channel."

To Allocate the Channels Directly

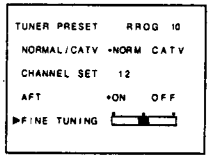
After step **3** in "Tuning a Desired Channel," move cursor to CHANNEL SET.
Enter the desired programme numbers using the programme position number buttons. To enter one's digits, press 0 and then the desired number. To enter two digit numbers, press the ten's digit number and the one's digit number.



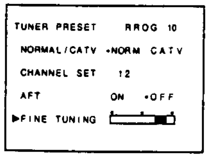
2


TUNER PRESET PROG 10
NORMAL/CATV •NORM CATV
▶CHANNEL SET 12
AFT •ON OFF
FINE TUNING

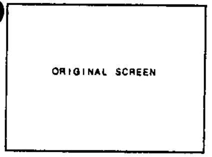
3


TUNER PRESET PROG 10
NORMAL/CATV •NORM CATV
CHANNEL SET 12
AFT •ON OFF
▶FINE TUNING

4


TUNER PRESET PROG 10
NORMAL/CATV •NORM CATV
CHANNEL SET 12
AFT ON •OFF
▶FINE TUNING

5


ORIGINAL SCREEN

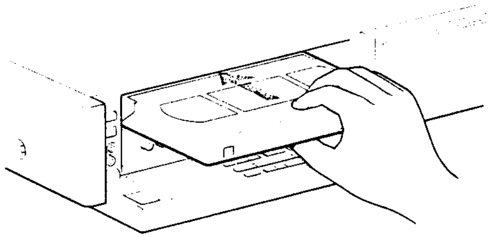
Manually Fine-tuning a Weak Station

Normally the AFT (Automatic Fine Tuning) function fine-tunes the picture with the AFT in TUNER PRESET menu set to ON. However, when the programme received on the VTR is distorted due to signal interference, fine tuning may solve the problem.

1. **Select the distorted programme position by pressing PROG +/– on the Commander or PROGRAM +/– on the VTR, or using JOG on the Commander.**
2. **Call up the TUNER PRESET menu.**
3. **Move cursor to FINE TUNING.**
   The fine tuning meter appears.
4. **Press ◀ or ▶ to obtain the best picture.**
   If you cannot obtain a better picture, move cursor to AFT and move dot to ON.
5. **Press EXE to store that position and return to the original screen.**

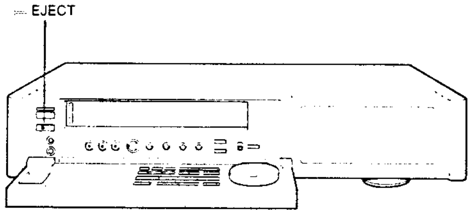
Note on the TUNER PRESET Menu
When the channel scanning function finds a station, it stops, and the blue background changes to the received TV picture. Usually, the TUNER PRESET menu will be superimposed over the TV picture clearly. However, if the synchronization of the received TV picture is disturbed (e.g. through interference from a subsidiary channel), the TUNER PRESET menu disappears or is not clear. In this case, press ◀ or ▶ to continue the scanning operation.

Handling Video Cassettes



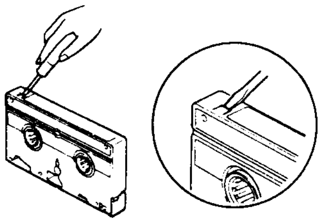
Cassette Insertion

Insert the cassette by slowly pressing its center with the arrow indication facing upwards. When a cassette is inserted, the power will be turned on automatically. If the inserted cassette has its safety tab removed, playback starts automatically.



Cassette Ejection

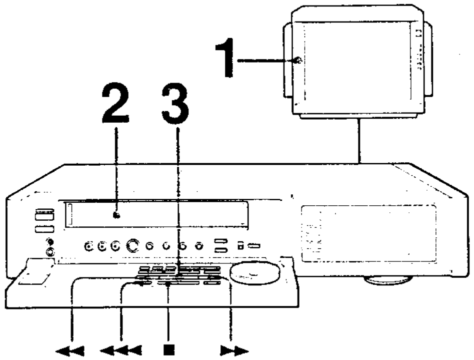
Press EJECT on the VTR. When the VTR is turned off, pressing the EJECT button will turn on the unit, eject the cassette and turn off the VTR again.
Note that EJECT will not function during recording.

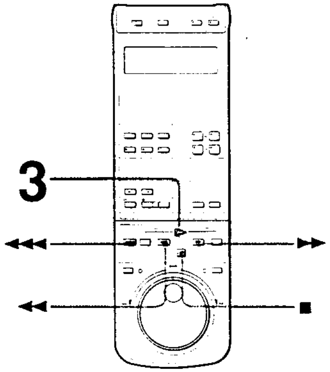


Erase Protection

When recording is made on a pre-recorded tape, the previous recording will be erased. To avoid this, remove the safety tab with a screwdriver or a similar tool.
The cassette will then be ejected when recording is attempted. To record again on a cassette that has no tab, simply cover the safety tab hole with a piece of plastic tape.

Playback





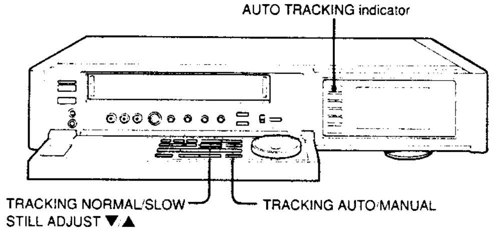
Playing a Tape

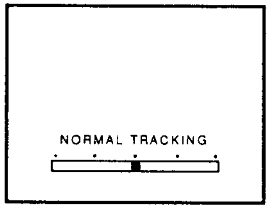
1 **Turn on the TV and select the programme position for the VTR.**
If VTR-TV connection is made via EURO-AV (LINE 1) or LINE OUT VIDEO/AUDIO, select the input for the VTR.

2 **Insert a cassette.**
The VTR will be turned on. If your cassette has its safety tab removed, playback starts automatically.

3 **Press ►.**
Playback starts.
The VTR automatically rewinds the tape when it reaches the end.

To stop playback, press ■.
To rewind the tape, press ◄◄.
To rewind the tape at a higher speed, press ◄◄◄.
To advance the tape rapidly, press ►►.





Picture Adjustments

■ Auto tracking function

The tracking condition is automatically adjusted on this VTR. The AUTO TRACKING indicator blinks while the VTR is searching for the best tracking condition and lights when maximum playback picture is obtained. The automatic tracking control is activated in the following conditions:

- — when the cassette is inserted and played back.
- — when the recording tape speed on the playback tape is switched between SP and LP.
- — when the picture is distorted by scratches, etc. on the tape.
- — when the AUTO TRACKING indicator is turned on by pressing TRACKING AUTO/MANUAL after the picture is adjusted manually. (See below.)

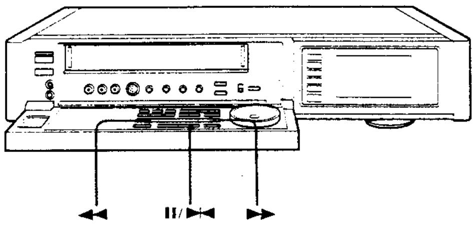
■ Manual adjustment during normal playback

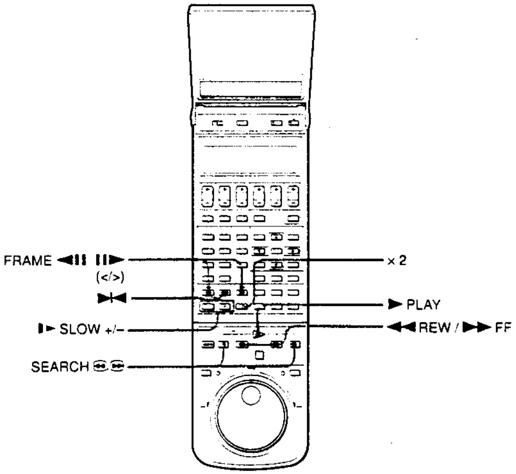
If streaks or snow appear, adjust the picture using TRACKING NORMAL /SLOW and STILL ADJUST ▼ ▲.

Press either ▼ or ▲ to obtain the best possible picture.

Notes on auto tracking

- When the manual adjustment proves unsatisfactory, press both of the TRACKING NORMAL/SLOW and STILL ADJUST ▼ ▲. The tracking condition will return to the center position.
- **When the sound on the hi-fi audio track is not clear,** adjust it with TRACKING NORMAL/SLOW and STILL ADJUST ▼ ▲. While adjusting, the sound on the normal audio track may be heard.
- Tracking adjustment may not be possible when the recording condition of the tape is very poor.





Various Playback Modes Using the Buttons on the Commander and the VTR

■ Playback pause/still

Press II ▶◀ on the VTR, II or ▶◀ during playback. Press ▶ to resume normal playback.

■ Frame-by-frame playback

Press ◀II or II▶ in playback still mode.
II▶ will advance and ◀II will reverse the picture one frame. Press ▶ to resume normal playback.

■ Variable speed playback

Press I▶ SLOW +/– for slow playback between 1/5 to 1/30 times normal speed.
Press + or – to change the playback speed.
Press × 2 for double speed playback.
The speed setting can be made from any playback mode. Press ▶ to resume normal playback.

■ Reverse playback

During normal, slow or × 2 playback, press ◀II (<) to reverse the picture.
Press II▶ (>) or ▶ to resume forward playback.

■ Picture search

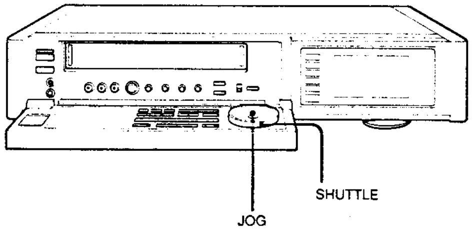
Press ◀◀ or ▶▶ during playback.
The picture will be scanned in reverse with ◀◀ and forward with ▶▶ as long as they are pressed. Release the button to return to the previous playback mode.

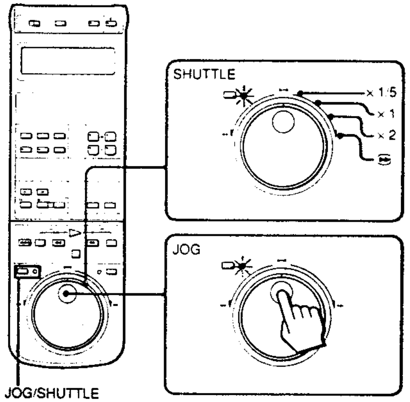
■ Locked picture search

Press ⏪ or ⏩ SEARCH during playback.
The picture will keep on scanning in reverse with ⏪ and in forward with ⏩ even after the button is released. To resume normal playback, press ▶.

■ Viewing the picture during fast-forward or rewind

Press ▶▶ during fast-forward, or ◀◀ during rewind mode. The picture can be seen while the button is pressed.
Release the button to return to the previous mode.





JOG/SHUTTLE function button and indicator

Various Playback Modes Using JOG/SHUTTLE

Various playback modes can be selected with JOG SHUTTLE on the Commander or the VTR from any playback mode.
If you use the Remote Commander, press the JOG SHUTTLE function button to light the indicator. (The VTR enters the still picture mode.)

■ **Using the SHUTTLE ring**
Turn the ring and hold it. Playback speed can be selected according to the turning angle as illustrated. The same speed is available in the reverse direction.

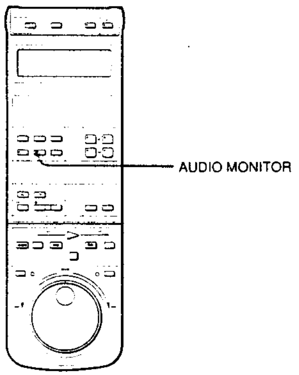
■ **Using the JOG dial**
Playback speed varies according to the speed at which you turn the dial (frame-by-frame, slow, × 1). The same speed is available in the reverse direction.

Releasing JOG SHUTTLE makes a still picture. To resume normal playback, press ►.

To eliminate streaks or noise bands during slow motion play
Adjust the picture with TRACKING NORMAL SLOW and STILL ADJUST ▼▲ inside the front panel. The picture can be adjusted easily in faster speed playback.

To eliminate the bands on the top or bottom of the screen in still mode
Change to the slow motion play mode and adjust the picture with TRACKING NORMAL SLOW and STILL ADJUST ▼▲.

To eliminate picture shaking during still mode
Adjust the picture with TRACKING NORMAL SLOW and STILL ADJUST ▼▲.

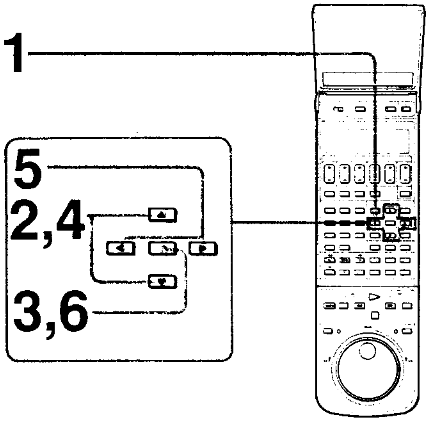


Listening to a Stereo or Bilingual Tape

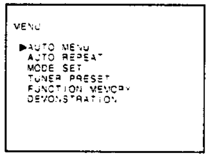
Press AUDIO MONITOR to select the sound to be heard.
With each pression, stereo (left and right channel sounds), left-channel sound, right-channel sound or the sound on the normal audio track is selected cyclically in order.
The selected sound is indicated in the display window of the VTR.

Display	Sound to be heard	
	Stereo tape	**Bilingual tape**
STEREO	Stereo	Left and right channels
MAIN/L	Left channel	Left channel
SUB/R	Right channel	Right channel
None	Monaural (on normal audio track)	Sound on normal audio track

Notes on the AUDIO MONITOR button
- AUDIO MONITOR will not function with a monaural tape.
- AUDIO MONITOR does not operate when AUDIO MIX ON is selected in the MODE SET menu (see page 30).

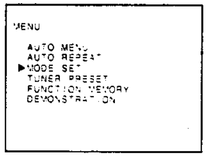


1



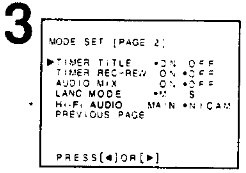
```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2



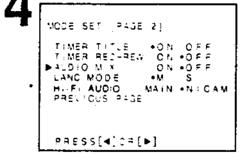
```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3



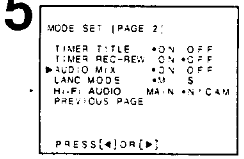
```
MODE SET [PAGE 2]

▶TIMER TITLE      •ON  OFF
 TIMER REC-REW     ON •OFF
 AUDIO MIX         ON •OFF
 LANC MODE        •M   S
*HI-FI AUDIO     MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

4



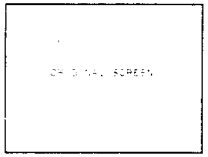
```
MODE SET [PAGE 2]

 TIMER TITLE      •ON  OFF
 TIMER REC-REW     ON •OFF
▶AUDIO MIX         ON •OFF
 LANC MODE        •M   S
*HI-FI AUDIO     MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

5



```
MODE SET [PAGE 2]

 TIMER TITLE      •ON  OFF
 TIMER REC-REW     ON •OFF
▶AUDIO MIX        •ON  OFF
 LANC MODE        •M   S
*HI-FI AUDIO     MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

DIO for SLV-777UB 777NC only.

To listen to the sounds on the hi-fi video track and normal audio track mixed

It is possible to output the sounds recorded on the hi-fi video track and the normal audio track simultaneously. This function is useful when you listen to an audio-inserted tape.

1 **Press MENU in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

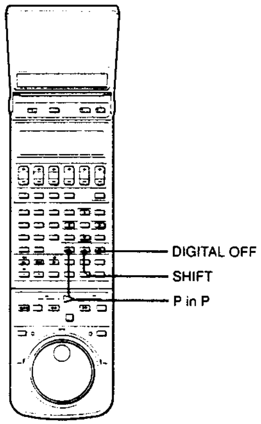
3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET [PAGE 2] menu appears.

4 **Move cursor with ▲ or ▼ to AUDIO MIX.**

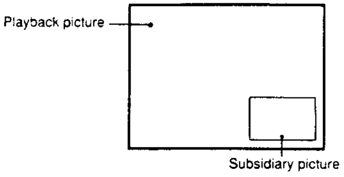
5 **Select ON or OFF by ◀ or ▶.**
ON: to make AUDIO MONITOR inoperative so that the sounds of the hi-fi video and normal audio tracks are always output.
OFF: to make AUDIO MONITOR operative so that you can select the sound to be heard.

6 **Press EXE to store the setting and return to the original screen.**

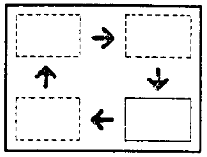
Note
Reset the AUDIO MIX setting to OFF after listening to the particular tape.



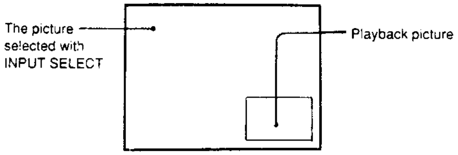
[a]



[b]



[c]



Inserting a Small Picture into the Playback Picture

Press P in P during playback.
The subsidiary picture selected with INPUT SELECT will appear on the TV screen.
See illustration [a].

- If TUNER mode is selected with INPUT SELECT, you can watch the TV picture on the subsidiary screen.

■ Changing the position of the subsidiary picture

Press SHIFT repeatedly until the desired position is reached.
See illustration [b].

■ Inverting the subsidiary picture and the main picture

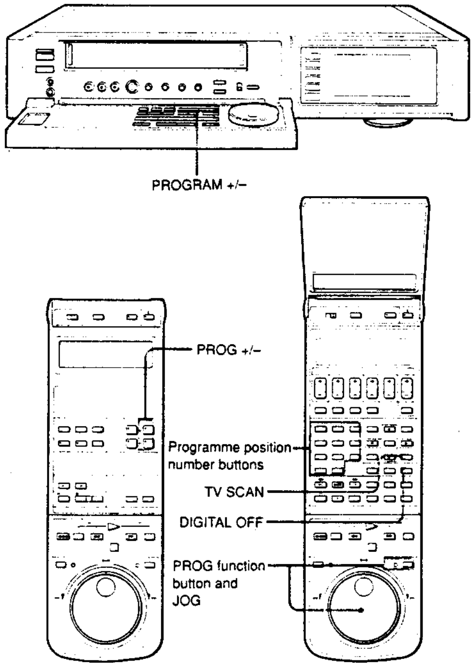
Press P in P again.
See illustration [c].

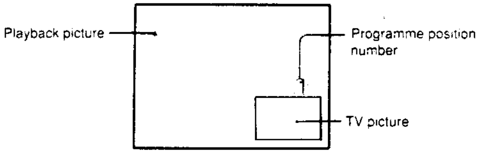
■ Turning off the subsidiary picture

Press DIGITAL OFF.

Note

- If no recorded portion is played back at a speed except the normal one, the subsidiary picture will not be displayed.
- If TUNER mode is selected and no TV programme is being broadcast, a disturbed picture may be displayed on the subsidiary screen.


PROGRAM +/–
PROG +/–
Programme position number buttons
TV SCAN
DIGITAL OFF
PROG function button and JOG


Playback picture
Programme position number
TV picture

Watching TV Programmes in Succession — TV SCAN

You can watch each TV programme for a few seconds in the order of programme position numbers.

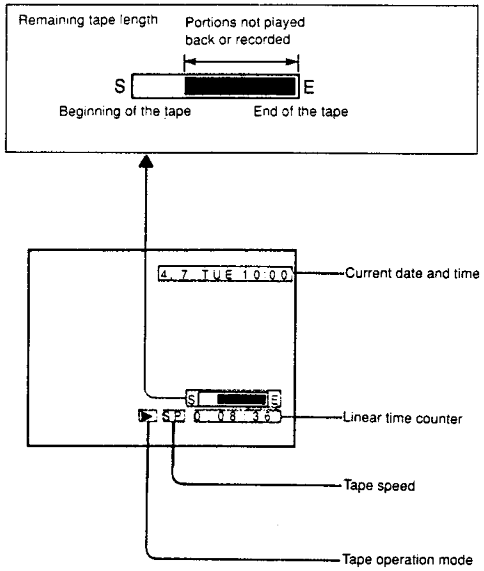
Press TV SCAN during playback.
After all the preset programmes are displayed, the first programme will appear again.

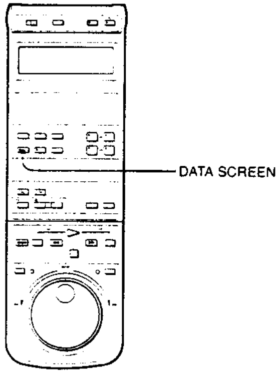
■ Viewing the desired programme continuously

Press the programme position number buttons, PROG + – or press the PROG function button to light the indicator and turn JOG on the Commander or press PROGRAM + – on the VTR.

■ Turning off the subsidiary picture

Press DIGITAL OFF.


Remaining tape length
Portions not played back or recorded
S
E
Beginning of the tape
End of the tape
4. 7 TUE 10:00
Current date and time
SP
0 08 36
Linear time counter
Tape speed
Tape operation mode


DATA SCREEN

Data Screen

Data screen information illustrated on the left will automatically appear on the screen during playback or recording as a reference. Note, however, that the data screen will not be displayed in the following cases:

- When the VTR-TV connection is made via the LINE OUT VIDEO jack.
- When the VTR is in slow motion or playback pause mode.

■ To erase or display the data screen

Press DATA SCREEN.

Notes on the remaining tape length indicator

- The remaining tape length indicator only shows the approximate amount of tape left.
- The indication may shift vertically during the fast-forward or rewind mode.
- It may not operate properly when a short tape, such as the E-30 and VHS-C cassettes, or when a non-standardized tape is inserted.

To Erase the Current Date and Time from the Data Screen

1 **Press MENU**
The main MENU appears.

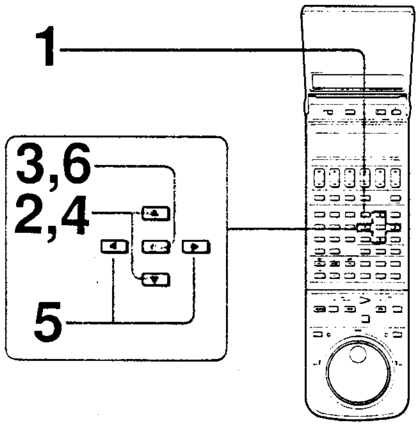
2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▼ or ▲ to PREVIOUS PAGE and press EXE. The MODE SET [PAGE 1] menu is displayed.

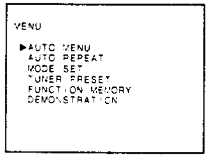
4 **Move cursor with ▲ or ▼ to CLOCK DISPLAY.**

5 **Press ◀ or ▶ to move the dot to OFF to erase the current date and time and to ON to display them.**

6 **Press EXE to store the setting and return to the original screen.**

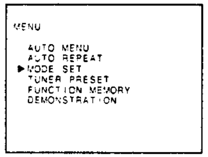


1



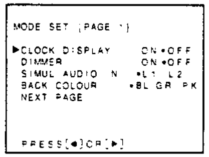
```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2



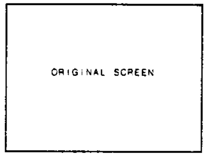
```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3,4,5



```
MODE SET [PAGE 1]

▶CLOCK DISPLAY        ON •OFF
 DIMMER               ON •OFF
 SIMUL AUDIO  N    •L1  L2
 BACK COLOUR      •BL GR  PK
 NEXT PAGE


 PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

Assigning a Desired Operation Mode — AUTO MENU

Guided by the AUTO MENU, you can make the VTR enter the desired operational sequence automatically.

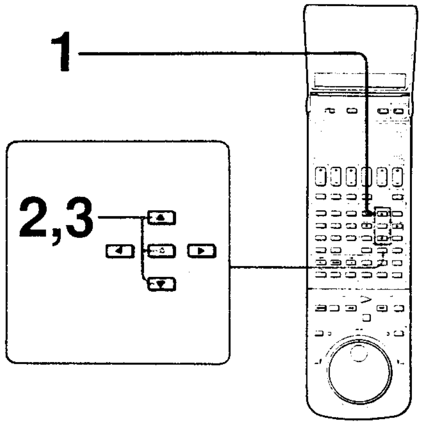
1 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to AUTO MENU and press EXE.**
The AUTO MENU appears.

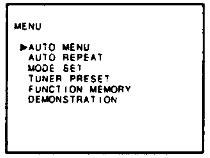
3 **Move cursor with ▲ or ▼ to the desired operational sequence and press EXE.**
The selected operation will begin.
The selected operating mode will be superimposed on the TV screen for a few seconds. The AUTO indicator will light in the display window during AUTO MENU operation.

Note on AUTO MENU operation
AUTO MENU cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode. A short beep alerts you if the AUTO MENU is not operable.

Note on "GO TO REC START — PLAY"
The recording start point data will be erased from the memory after the following operations and "GO TO REC START — PLAY" will not be operable.
- When COUNTER RESET is pressed.
- When cassette is ejected and re-inserted.
- When HIGH SPEED REWIND is pressed.

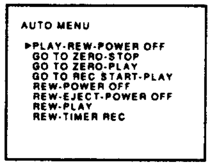


1



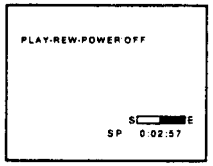
```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2



```
AUTO MENU

▶PLAY-REW-POWER OFF
 GO TO ZERO-STOP
 GO TO ZERO-PLAY
 GO TO REC START-PLAY
 REW-POWER OFF
 REW-EJECT-POWER OFF
 REW-PLAY
 REW-TIMER REC
```

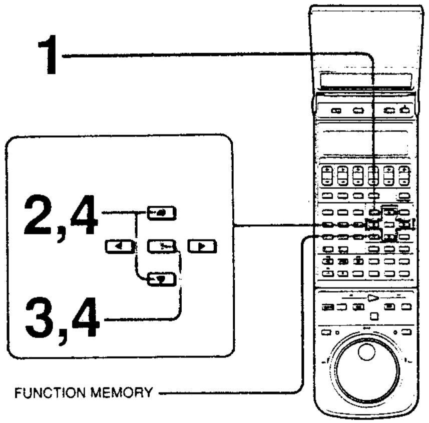
3



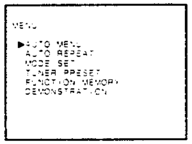
```
PLAY-REW-POWER OFF




                 S▭▭▭■■E
              SP    0:02:57
```

Auto Menu Modes

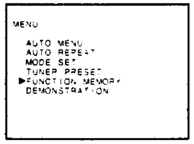
- **PLAY — REW — POWER OFF** plays back the tape, rewinds the tape when the end is reached, and turns the power off.
- **GO TO ZERO — STOP** searches for the counter zero point and stops. See page 48.
- **GO TO ZERO — PLAY** searches for the counter zero point and starts playback. See page 48.
- **GO TO REC START — PLAY** searches for the recording start point and starts playback.
- **REW — POWER OFF** rewinds the tape to the beginning and turns the power off.
- **REW — EJECT — POWER OFF** rewinds the tape to the beginning, ejects the cassette, and turns off the power.
- **REW — PLAY** rewinds the tape to the beginning and starts playback.
- **REW — TIMER REC** rewinds the tape to the beginning and enters the timer recording standby mode for timer recording when a timer recording is preset. A cassette with its safety tab removed will be ejected.
  When the VTR is in the timer recording standby mode, 1) press TIMER REC ON OFF to cancel the standby mode, 2) turn on the power of the VTR, 3) call up the AUTO MENU referring to page 35.



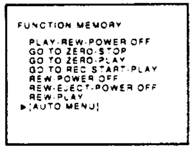
1


MENU
▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION

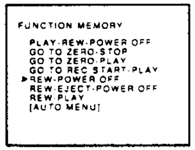
2


MENU
AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
▶FUNCTION MEMORY
DEMONSTRATION

3


FUNCTION MEMORY
PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
▶[AUTO MENU]

4

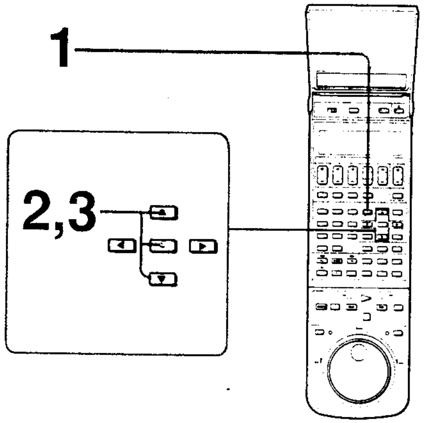

FUNCTION MEMORY
PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC START-PLAY
▶REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
[AUTO MENU]

Assigning an Auto Menu Mode to the FUNCTION MEMORY Button

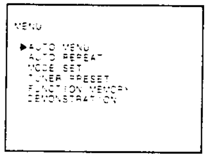
One of the AUTO MENU modes can be assigned to the FUNCTION MEMORY button on the Commander.

1. **Press MENU.**
   The main MENU appears.
2. **Move cursor with ▲ or ▼ to FUNCTION MEMORY.**
3. **Press EXE.**
   The FUNCTION MEMORY menu appears.
4. **Move cursor to the desired operational sequence and press EXE.**
   The selected operation will be activated every time FUNCTION MEMORY is pressed when the VTR is in stop mode.

   If you have selected "AUTO MENU" in step 4, the AUTO MENU will be displayed immediately after FUNCTION MEMORY is pressed, providing a short cut to the AUTO MENU.

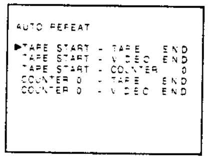


1



```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2



```
AUTO REPEAT

▶TAPE START - TAPE    END
 TAPE START - VIDEO  END
 TAPE START - COUNTER   0
 COUNTER 0  - TAPE    END
 COUNTER 0  - VIDEO  END
```

Assigning a Desired Portion of the Tape Played Back Repeatedly—AUTO REPEAT

You can make the VTR to repeat playback of a certain portion of the tape automatically.

1 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to AUTO REPEAT and press EXE.**
The AUTO REPEAT menu appears.

3 **Move cursor with ▲ or ▼ to the desired item you want to play back repeatedly and press EXE.**
The VTR will rewind or advance the tape rapidly to the start point of the selected repeat portion and start playback. Playback of that portion will repeat **five times** and then the VTR will rewind the tape to the start point. The AUTO indicator will light in the display window during repeat playback.

■ To stop playback
Press ■ STOP on the VTR or the Commander.

Notes on AUTO REPEAT operation
- If you press any tape operation button during repeat playback. AUTO REPEAT will be released.
- AUTO REPEAT cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode.
  A short beep alerts you if the AUTO REPEAT is not operable.

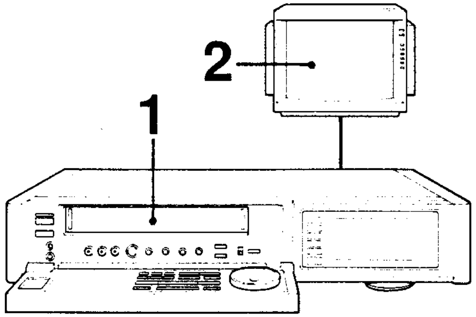
Auto Repeat Menu

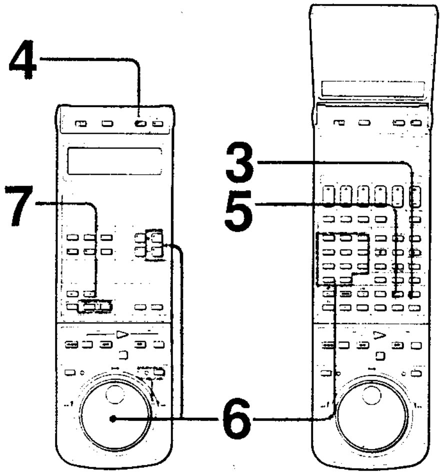
- ■ **TAPE START—TAPE END** repeats playback from the beginning to the end ot the tape.
- ■ **TAPE START—VIDEO END** repeats playback from the beginning of the tape to the end of the recorded portion.
- ■ **TAPE START— COUNTER 0** repeats playback from the beginning of the tape to the counter zero point.
- ■ **COUNTER 0 —TAPE END** repeats playback from the counter zero point to the end of the tape.
- ■ **OUNTER 0—VIDEO END** repeats playback from the counter zero point to the end of the recorded portion of the tape.

When you select the menu including "COUNTER 0"
Before activating AUTO REPEAT, press COUNTER RESET on the Commander to set the tape counter to 0H00M00S at the desired point.

Note on "VIDEO END"
The VTR normally detects a blank of about 10 seconds on the tape as "VIDEO END". However, for about 30 seconds from the beginning of the tape. the VTR does not do this. Accordingly. AUTO REPEAT will not work correctly in the following cases.
- When there is a blank of more than 10 seconds in the assigned repeat portion (more than 40 seconds at the beginning).
- When there is a blank of less than 10 seconds after the recorded portion to be played back repeatedly.
- When the tape is recorded to its end. (Assign the menu including "TAPE END".)

Recording TV Programmes





Before You Begin

- Check that all of the preparations are complete.
- The buttons on the VTR with the same name or mark can be used in the operation below as well.
- Data screen displays will not be recorded on the tape.

Operation

1 **Insert a cassette.**

2 **Turn on the TV.**
Set to the programme position for the VTR playback if VTR-TV connection is made only via the aerial sockets. Select VTR input if VTR-TV connection is via the EURO-AV (LINE 1) connector or LINE OUT VIDEO/AUDIO jacks.

3 **Press INPUT SELECT so that the TUNER indicator appears in the display window.**

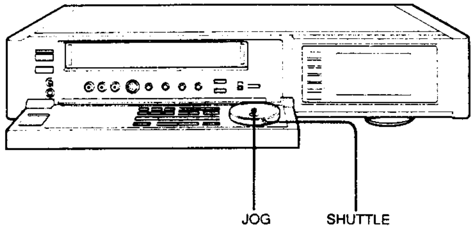
4 **Press TV/VTR so that the VTR indicator lights in the display window.**
(Only when connection is made via EURO-AV (LINE 1).)

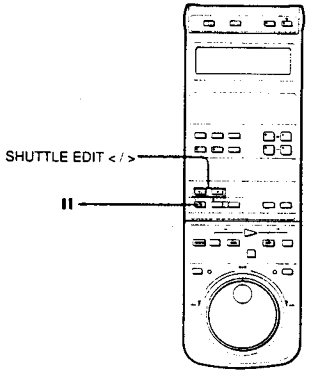
5 **Select the recording speed, SP or LP.**

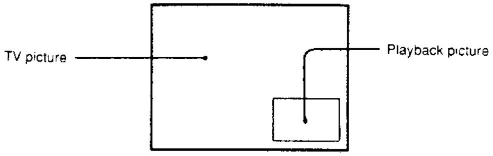
6 **Select the programme position to be recorded in any of the following ways:**
- Press PROG +/–.
- Press the programme position number buttons. To select 23, press – – –, then 2 and 3. To select 9, press 0 and 9.
- Press the PROG function button to light the indicator and turn JOG on the Commander. Turn it clockwise for higher numbered programme positions: counterclockwise for lower numbered programme positions.

7 **Press the right button while pressing ● REC.**
Recording will begin. When the tape reaches the end, it will be automatically rewound to the beginning. Pressing the ● REC button on the VTR also activates the recording.

To stop recording, press ■.







To Stop Recording Momentarily at an Unwanted Scene

1 **Press II when an unwanted scene appears.**
Recording is stopped and the VTR enters the recording pause mode.

2 **Press II again to resume recording at the desired scene.**

To Cut Out an Unwanted Scene by Recording Over it

1 **Press II during recording to enter the recording pause mode.**

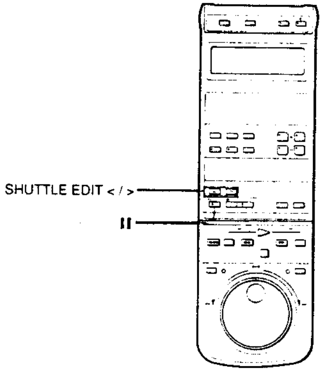
2 **Locate the point where you wish to continue recording using JOG/SHUTTLE on the VTR or SHUTTLE EDIT on the Commander.**
The unit will enter the P in P mode and the playback picture will be displayed on the subsidiary screen.
(For details on the operation, see below.)

3 **At the desired point, release JOG, SHUTTLE or SHUTTLE EDIT.**

4 **Press II to resume recording.**

■ How to use the JOG dial and the SHUTTLE ring on the VTR

Turn the dial and the ring during playback or in the recording pause mode.
Using JOG, playback speed and the direction can be selected according to the turning speed and direction.
Using SHUTTLE, playback speed and the direction can be selected according to the turning angle and direction.
Release the dial or ring to enter the playback pause mode or resume the recording pause mode.
- If the dial or ring is turned in the recording pause mode, the VTR enters the P in P mode and the playback picture appears on the subsidiary screen.



How to use the SHUTTLE EDIT buttons on the Commander

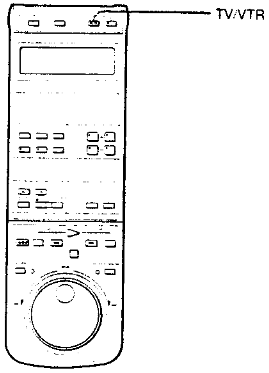
Use the buttons in the playback pause mode or in the recording pause mode. Keep < pressed to obtain 1/5 playback picture in reverse, and keep > pressed to obtain 1/5 playback picture.

Release the button to resume the playback pause or recording pause mode.

- If the button is pressed in the recording pause mode, the VTR enters the P in P mode and the playback picture appears on the subsidiary screen.

To record over from playback mode

1) Locate the point from where you wish re-record using JOG SHUTTLE on the VTR or the Commander or SHUTTLE EDIT and release it.
2) Press ● REC and its right button to enter the recording pause mode.
3) Press II to start recording.



Watching a TV Broadcast While Recording Another

If VTR-TV connection is made using the EURO-AV (LINE 1) connector

Press TV/VTR to turn off the VTR indicator.

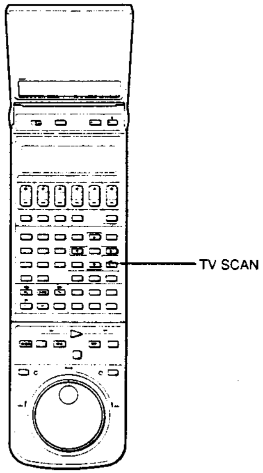
The programme selected on the TV appears on the screen.

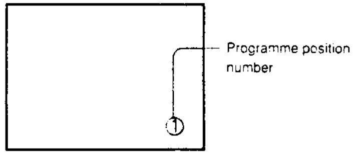
If VTR-TV connection is made using the LINE OUT VIDEO/AUDIO jacks

Select the tuner input on the TV and change the programme position on the TV.

If VTR-TV connection is made using only the aerial sockets

Change the programme position on the TV.

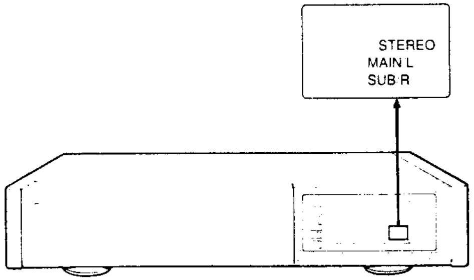


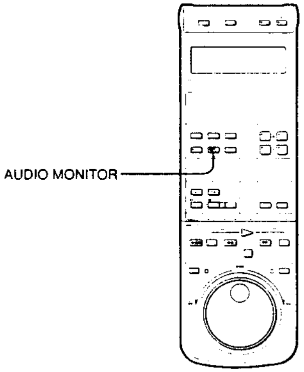


Watching TV Programmes in Succession — TV SCAN

When you are watching a TV programme, press TV SCAN.
Each preset programme will be displayed for a few seconds in the order of programme position numbers. When all the programmes are displayed, the normal display will resume.

Recording Stereo/Bilingual Programmes





SLV-777/777VP/777NC

The SLV-777/777VP/777NC receives and records stereo/bilingual programmes based on the "Zweiton" system adopted in West Germany.

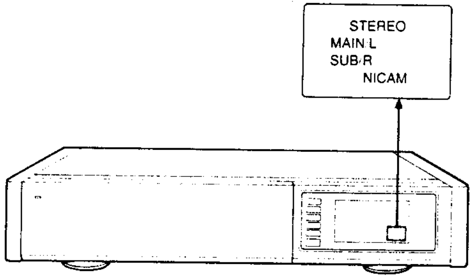
■ Stereo programme
When a stereo programme is received, STEREO appears in the display window.
The AUDIO MONITOR button does not function for the stereo programmes of the Zweiton system.

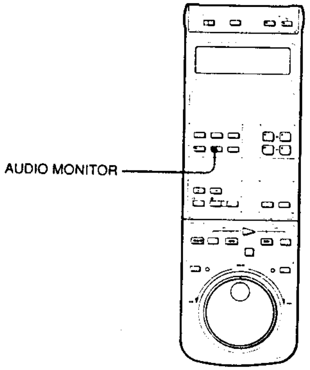
■ Bilingual programme
When a bilingual programme is received, MAIN/L appears in the display window.
Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

Display	Sound to be heard
MAIN L	Main sound
SUB R	Sub sound
MAIN/L SUB R	Main sound on the left channel Sub sound on the right channel

■ To record
A stereo or bilingual programme will be recorded on the hi-fi video track and normal audio track as follows regardless of the sound being monitored.

Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video		
Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Monaural (L and R channels mixed)	Main





SLV-777UB/777NC

The SLV-777UB/777NC receives and records stereo/bilingual programmes based on the "NICAM" system adopted in the United Kingdom and Nordic countries.

■ Stereo programme

When a stereo programme is received, STEREO and NICAM appear in the display window.
Press the AUDIO MONITOR button to select the sound to be heard. Each time AUDIO MONITOR is pressed, the stereo (NICAM L and R channels) or the standard sound is selected alternately.

Display	Sound to be heard
STEREO	Left channel sound on the left channel Right channel sound on the right channel
None	Standard sound

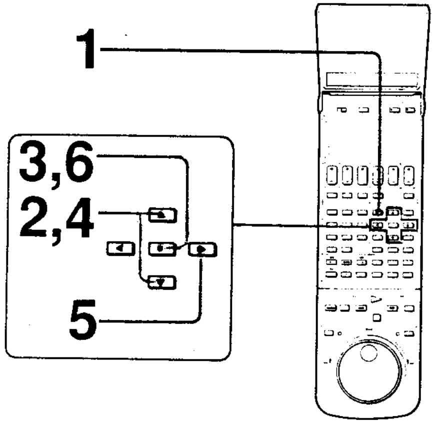
■ Bilingual programme

When a bilingual programme is received, NICAM and MAIN L appear in the display window.
Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

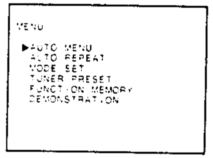
Display	Sound to be heard
MAIN L	Main sound
SUB·R	Sub sound
MAIN L SUB R	Main sound on the left channel Sub sound on the right channel
None	Standard sound

Understanding the NICAM broadcast

NICAM broadcasting has two-channel digital sounds called NICAM L and R channels in addition to the standard sound. The NICAM L and R are assigned to the stereo left and right channels or the main and sub sounds of a bilingual programme. The standard sound of most NICAM broadcasts is the mixed sound of the left and right channels for a stereo programme, and the main sound for a bilingual programme.

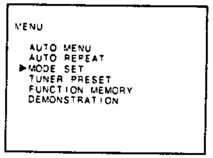


1



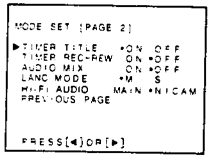
```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2



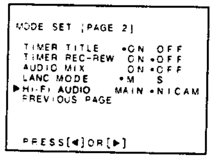
```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3



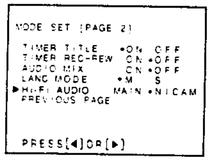
```
MODE SET [PAGE 2]

▶TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
 LANC MODE      •M   S
 HI-FI AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

4



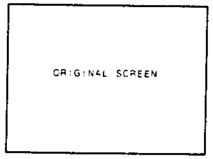
```
MODE SET [PAGE 2]

 TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
 LANC MODE      •M   S
▶HI-FI AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

5



```
MODE SET [PAGE 2]

 TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
 LANC MODE      •M   S
▶HI-FI AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

■ To record NICAM broadcasts

1. **Before recording a NICAM broadcast, press MENU.**
   The main MENU appears.
2. **Move cursor with ▲ or ▼ to MODE SET.**
3. **Press EXE.**
   If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
   The MODE SET [PAGE 2] menu appears.
4. **Move cursor with ▲ or ▼ to Hi-Fi AUDIO.**
5. **Press ▶ to move the dot to NICAM.**
6. **Press EXE to store the setting.**

With NICAM setting, NICAM broadcasts will be recorded as in the following table.

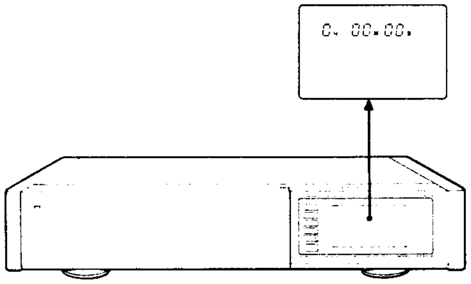
Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video		
Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Standard	Standard

- When there is no NICAM broadcast, the standard sound will be recorded on both the hi-fi video track and the normal audio track.

■ To record the standard sound only

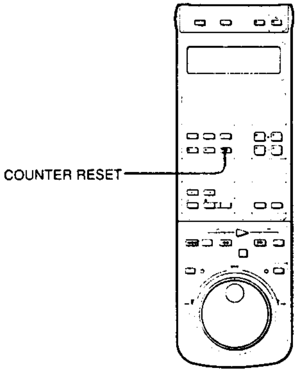
Follow the operations above and set Hi-Fi AUDIO to MAIN in step **5**.
The standard sound will be recorded on the left and right channels of the hi-fi video track and the normal audio track.

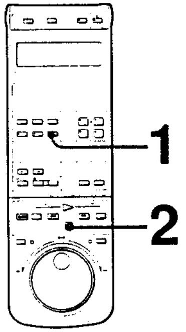
Use of the Tape Counter

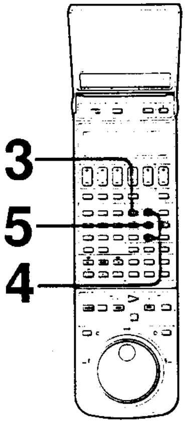


Understanding Counter Zero Position

The tape counter on this VTR can be used as a reference when you wish to locate a certain scene after recording or playback. Press COUNTER RESET to set the counter to "0H00M00S" (counter zero position) before operation. The VTR will keep counting the length of tape being played back or recorded. Note, however, that the tape counter will not count the portions of tape with no signals recorded. This VTR automatically resets the counter to zero whenever a cassette is inserted. Two additional features using COUNTER RESET are available on this VTR: Tape Return and Tape Return Play.


COUNTER RESET





Tape Return

The VTR can search for the counter zero position and stop. This function is useful for locating a particular scene after recording or playback.

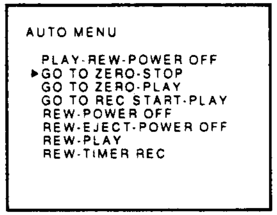
1 **Press COUNTER RESET at the desired scene during recording or playback.**

2 **Press ■ to stop after recording or playback.**

3 **Press MENU and select AUTO MENU.**
See "Assigning a Desired Operation Mode" for operation.

4 **Move cursor to "GO TO ZERO-STOP."**

5 **Press EXE.**


AUTO MENU
PLAY-REW-POWER OFF
▶GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

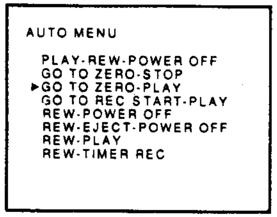
Tape Return Play

The VTR will even search and start playback from the counter zero position after recording or playback.

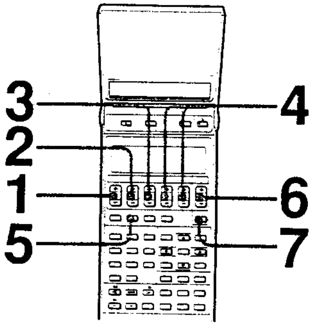
1 **Repeat steps 1 to 3 in the Tape Return operation.**

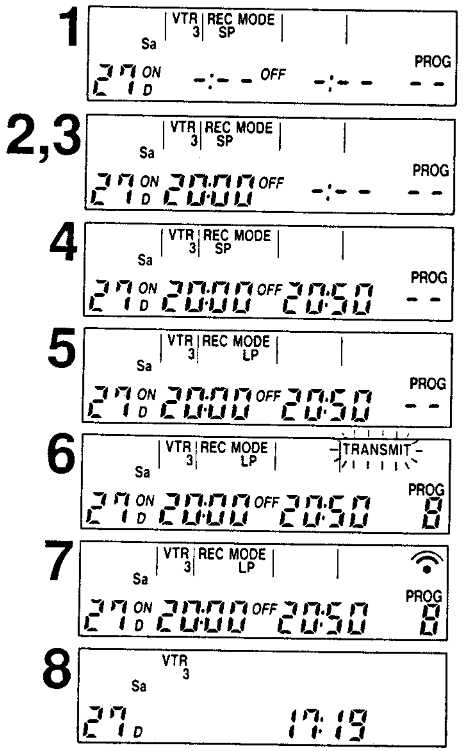
2 **Move cursor to "GO TO ZERO-PLAY".**

3 **Press EXE.**


AUTO MENU
PLAY-REW-POWER OFF
GO TO ZERO-STOP
▶GO TO ZERO-PLAY
GO TO REC START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

Timer Activated Recording




1
VTR 3 REC MODE SP
Sa
27 ON D -:- - OFF -:- -
PROG - -
2,3
27 ON D 20:00 OFF -:- -
4
27 ON D 20:00 OFF 20:50
5
VTR 3 REC MODE LP
6
TRANSMIT
PROG 8
7
8
VTR 3
Sa
27 D 17:19

Timer Recording on this VTR

Up to eight preselected programmes can be set on this VTR, up to one month in advance.

Before You Begin

- Turn on the TV and adjust it to view the VTR output.
- Check to see that the clock on the Commander and the VTR shows the present time.
- To operate the SLV-777VP, read "VPS Function" first. (See page 59.)

Operation

Example: To record a programme broadcast from 20:00 to 20:50 on Saturday, July 27, 1991 on programme position 8 in LP mode.

1 **Open the cover of the Commander and press D until 27 appears.**
The day of the week, Sa (Saturday), is automatically set.

2 **Set the recording start hour with TURN ON H.**

3 **Set the recording start minute with TURN ON M.**

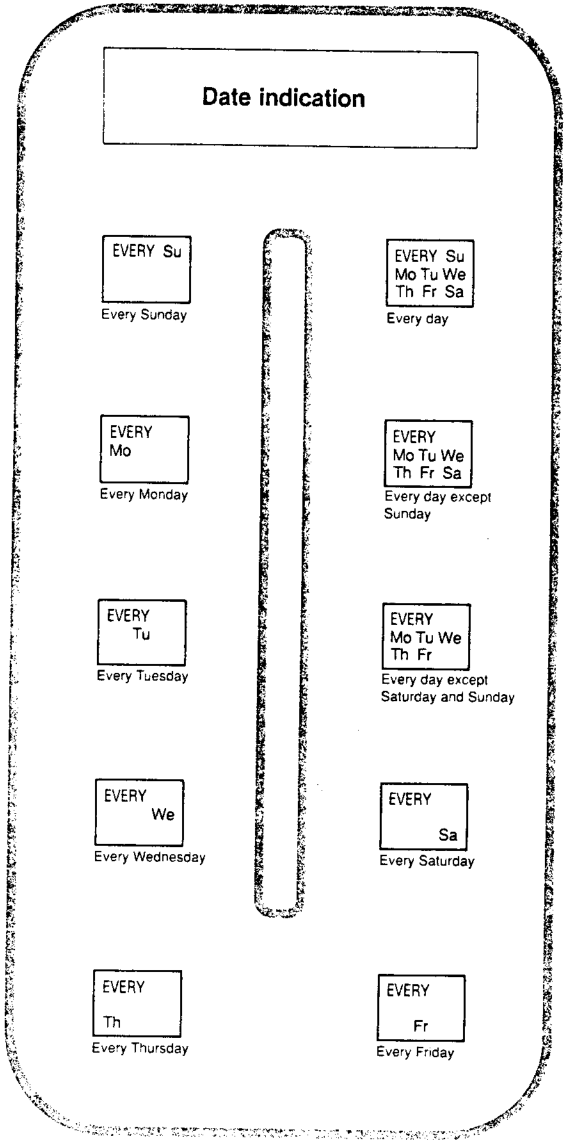
4 **Set the recording end hour and minute with TURN OFF H and M referring to step 2 and 3.**

5 **Set the recording speed, SP or LP, with REC MODE.**

6 **Set the programme position with PROG.**
The TRANSMIT indicator blinks to indicate that all of the items are entered.

7 **Point the Commander to the VTR and press TRANS.**
With a beep sound, the settings appear in the display window of the VTR for a few seconds and the VTR enters the timer recording standby mode. The PROGRAM LIST appears on the screen for a few seconds if the VTR is turned on.

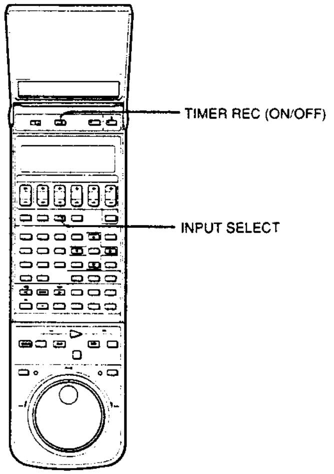
8 **Close the cover of the Commander so that the present time appears on the LCD.**
The VTR turns on, starts recording at the selected time, and turns off after recording ends.


Date indication
EVERY Su
Every Sunday
EVERY Mo
Every Monday
EVERY Tu
Every Tuesday
EVERY We
Every Wednesday
EVERY Th
Every Thursday
EVERY Su Mo Tu We Th Fr Sa
Every day
EVERY Mo Tu We Th Fr Sa
Every day except Sunday
EVERY Mo Tu We Th Fr
Every day except Saturday and Sunday
EVERY Sa
Every Saturday
EVERY Fr
Every Friday

Daily/Weekly Recording

This VTR can be preset to record the same programme each day of the week (daily recording) or the same programme on a specific day of every week.

Press D – (minus) on the Commander to change the LCD in the order shown in the illustration instead of step 1 in the "Operation." When the desired recording mode is set and transmitted to the VTR, the corresponding indicator lights in the display window.



To Set Other Programmes

Repeat steps **1** to **7** in "Operation" before step **8**.

To Stop Timer Recording

Press TIMER REC ON/OFF.

To Record from Equipment Connected to EURO-AV (LINE 1), EURO-AV (LINE 3), or LINE IN 2 VIDEO/AUDIO

Press INPUT SELECT anytime in step **1** to **6** to change the indication from PROG – – to LINE L1 (for the EURO-AV (LINE 1) connector), LINE L2 (for the LINE IN 2 VIDEO/AUDIO jacks) or LINE L3 (for the EURO-AV (LINE 3) connector).

To Record TV Programme and Audio Signals from Equipment Connected to EURO-AV (LINE 1) or LINE IN 2 AUDIO Simultaneously

Set the desired programme position and press INPUT SELECT to indicate SIMUL in step **6**. For simulcast recording, see page 68.

If a short beep sounds repeatedly when TRANS is pressed

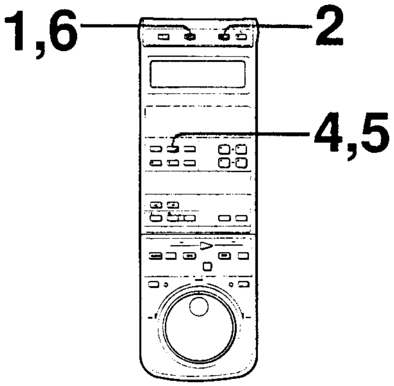
- No cassette is inserted.
- An illogical setting has been made.
- Timer setting can only be performed when the VTR is in turned off, stop, or timer recording mode.
- Eight timer settings have already been made.
- The tape is at its end.

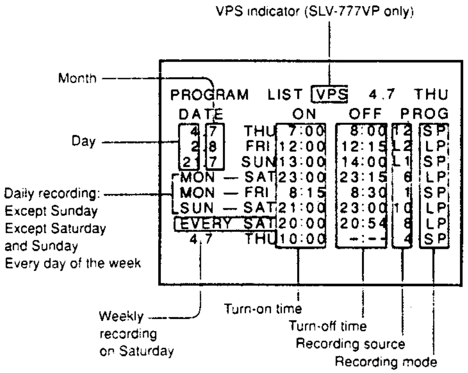
If the tape is ejected after pressing TRANS

The safety tab of the inserted cassette is removed.

Understanding "one month"

This VTR sets the timer to record programmes which are to be broadcast between today and one day before the same date of the next month.





PROGRAM LIST VPS 4.7 THU

DATE		ON	OFF	PROG	
4.7	THU	7:00	8:00	12	SP
2.8	FRI	12:00	12:15	L2	LP
21.7	SUN	13:00	14:00	L1	SP
MON — SAT		23:00	23:15	6	LP
MON — FRI		8:15	8:30	1	SP
SUN — SAT		21:00	23:00	10	LP
EVERY SAT		20:00	20:54	8	LP
4.7	THU	10:00	-:--	4	SP

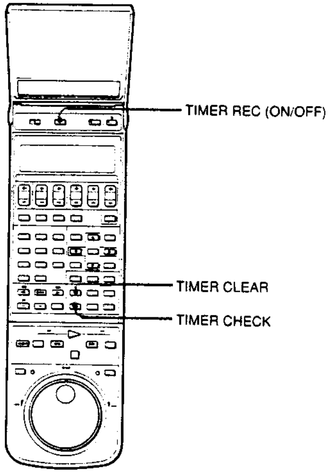
Checking the Timer Settings

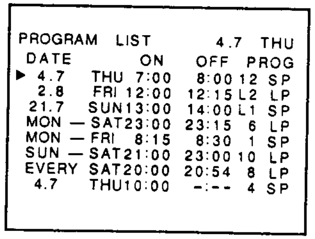
The timer settings can be checked while the VTR is in the timer recording standby mode by displaying the programme list on the TV screen.

1. **Press TIMER REC ON/OFF to turn off the TIMER REC indicator in the display window of the VTR.**
2. **Turn on the VTR and press TV/VTR to light the VTR indicator in the display window.**
   (Only when connection is made via EURO-AV (LINE 1).)
3. **Turn on the TV.**
   Set to the programme position for VTR if VTR-TV connection is made via the aerial sockets. Select VTR input on the TV if VTR-TV connection is made via EURO-AV (LINE 1).
4. **Press TIMER ON SCREEN.**
   The programme list appears.
5. **Press TIMER ON SCREEN again to return to the original screen.**
6. **Press TIMER REC ON/OFF to return to the timer recording standby mode.**

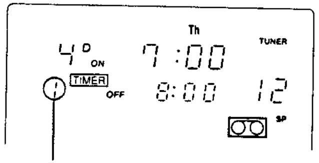
Checking the settings without releasing timer recording standby mode

Press TIMER CHECK. Each press changes the programme in the display window one after another.


TIMER REC (ON/OFF)
TIMER CLEAR
TIMER CHECK



```
PROGRAM  LIST          4.7  THU
 DATE         ON      OFF  PROG
▶ 4.7      THU 7:00   8:00 12 SP
  2.8      FRI 12:00 12:15 L2 LP
 21.7      SUN13:00  14:00 L1 SP
 MON — SAT23:00      23:15  6 LP
 MON — FRI  8:15      8:30  1 SP
 SUN — SAT21:00      23:00 10 LP
 EVERY SAT20:00      20:54  8 LP
  4.7      THU10:00   -:--  4 SP
```


Th
TUNER
4 D
ON
7 :00
TIMER
OFF
8:00
12
SP

Programme number

Clearing/Correcting the Timer Setting

■ Referring to the programme list

1 **Display the programme list referring to steps 1 to 4 in "Checking the Timer Settings."**

2 **Press TIMER CHECK to call up and move cursor to the setting you want to clear or correct.**

3 **To clear the setting, press TIMER CLEAR.**
If there are other timer settings on the list, press TIMER REC ON OFF to return to the timer recording standby mode.
To correct the setting, re-enter all of the items using the Commander. Refer to "Timer Activated Recording — Operation" steps 1 to 7.
The VTR automatically enters the timer recording standby mode.

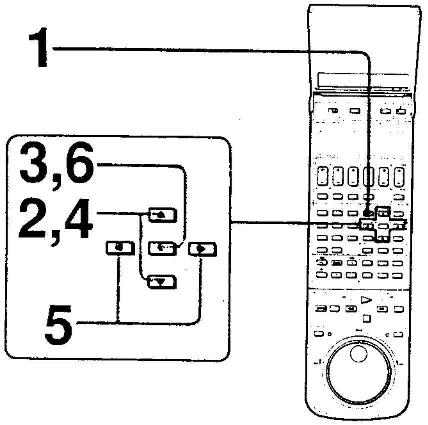
■ Clearing the setting without the programme list

1 **Press TIMER REC ON OFF.**

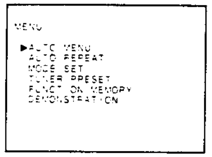
2 **Press TIMER CHECK repeatedly until the desired programme appears in the display window.**

3 **Press TIMER CLEAR.**

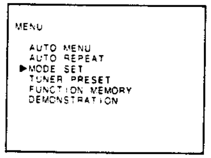
4 **Press TIMER REC ON OFF to return to the timer recording standby mode if there are other programmes set for timer recording.**



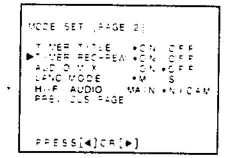
1


MENU
▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION

2


MENU
AUTO MENU
AUTO REPEAT
▶MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION

3,4,5



```
MODE SET [PAGE 2]

 TIMER TITLE     •ON  OFF
▶TIMER REC-REW   •ON  OFF
 AUDIO MIX        ON •OFF
 LANG MODE       •M    S
*HI-F AUDIO      MAIN •NICAM
 PREVIOUS PAGE

 PRESS[◀]OR[▶]
```

6

ORIGINAL SCREEN

*Hi-Fi AUDIO for SLV-777UB 777NC only

To Automatically Rewind the Tape After Timer Recording

1 **Before setting the timer, press MENU.**

2 **Move cursor with ▲ or ▼ to MODE SET in the main menu.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE. The MODE SET [PAGE 2] menu is displayed.

4 **Move cursor with ▲ or ▼ to TIMER REC — REW.**

5 **Press ◀ or ▶ to move the dot to ON.**
To cancel this setting, move the dot to OFF.

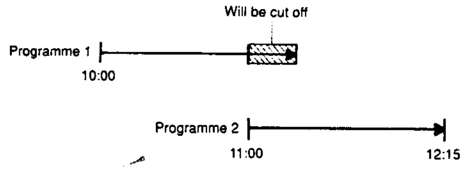
6 **Press EXE to store this setting and return to the original screen.**

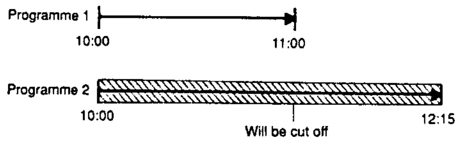
Using the VTR during Timer Recording Standby Mode

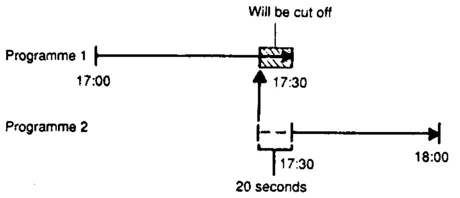
1 **Press TIMER REC ON/OFF to turn off the TIMER REC indicator.**

2 **Turn on the power of the VTR.**
The VTR is ready to be used.

3 **After using the VTR, press TIMER REC ON/OFF to light the TIMER REC indicator. The VTR re-enters the timer recording standby mode.**







When the Timer Settings Overlap

■ If the setting of two programmes overlap

The recording of the following programme will begin automatically before the proceeding programme ends.

■ If the turn-on time of two programmes are the same

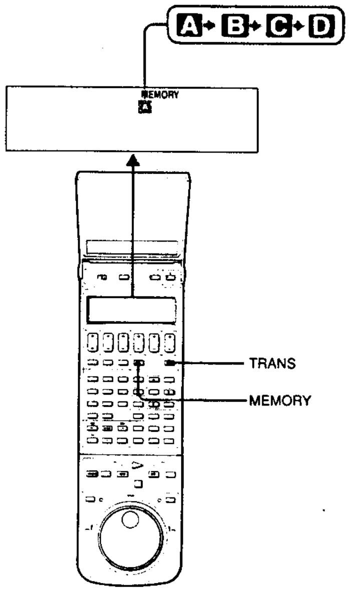
The VTR will record the programme with the smaller programme number or listed first on the programme list. The programme with the larger programme number or listed lower in the list will be erased.

■ If the recording end time of programme 1 and the recording start time of programme 2 are the same

The last 20 seconds of programme 1 will not be recorded because the VTR will enter the recording pause mode for programme 2 and records the timer title for programme 2 before programme 1 ends.

Power interruption during timer recording standby/timer recording mode

- If the power interruption lasts less than three hours, the VTR will enter the recording standby mode or resume timer recording when the power is recovered.
- If the power interruption exceeds three hours during the recording standby mode, the timer settings will be cleared.
  Reset the clock and re-enter the items for timer recording again. If the power interruption occurred during timer recording, the recording will stop and the VTR will be turned off.



To Store the Frequently Used Timer Settings in the Commander

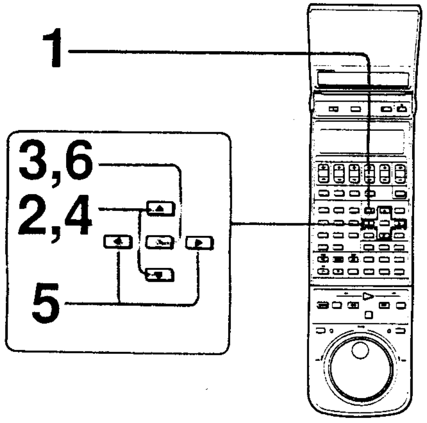
The items selected for one timer recording programme will be erased from the LCD when the Commander cover is closed, and cleared from the programme list as well when recording is over.
However, the turn-on/turn-off time and the programme position of up to four programmes can be stored in the Commander to be recalled later. This enables you to quickly access the most frequently used items, especially your favorite weekly programme, since the recording date will automatically be shifted to the next week after the recording is over.

■ Storing the parameters

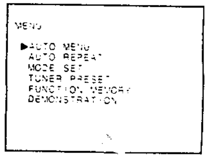
1. **Press MEMORY to indicate MEMORY A.**
2. **Set all of the items for timer recording referring to "Timer Activated Recording — Operation."**
3. **Press MEMORY to change the indication to B, C, or D, and repeat step 2 for other programmes.**
   The items set will be kept in the memory even when the Commander cover is closed.

■ Recalling and re-entering the items

1. **Press MEMORY to call up the desired memory indication (A, B, C, or D).**
2. **Make whatever changes necessary.**
3. **Press TRANS.**
   The VTR enters the timer recording standby mode.

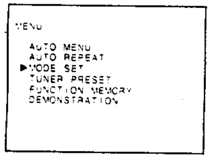


1



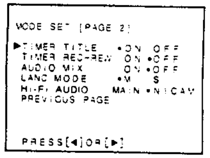
```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2



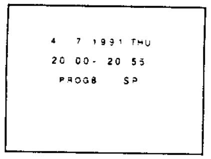
```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3,4,5



```
MODE SET [PAGE 2]

▶TIMER TITLE     •ON  OFF
 TIMER REC-REW    ON •OFF
 AUDIO MIX        ON •OFF
 LANC MODE       •M   S
 Hi-Fi AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

6



```
4  7 1991 THU
20 00- 20 55
PROG8   SP
```

*Hi-Fi AUDIO for SLV-777UB 777NC only

Recording a Timer Title

A timer title screen consisting of the date of recording, recording start/end time, the programme position and recording mode can be recorded on the tape for 3 seconds before the programme. The timer title is convenient for locating a desired programme when several programmes are recorded on a single tape.

1 **Before setting the timer, press MENU.**
The main menu appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

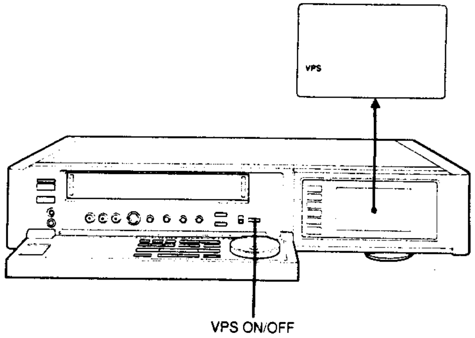
3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE. The MODE SET [PAGE 2] menu is displayed.

4 **Move cursor with ▲ or ▼ to TIMER TITLE.**

5 **Press ◀ or ▶ to move the dot to ON to record the timer title, and OFF to record without timer title.**

6 **Press EXE to store the setting.**
If ON is selected in step 5, the timer title will automatically be recorded before the timer recording starts.

SLV-777VP only
The timer title cannot be recorded if the VPS indication is lit in the VTR's display window, regardless of the setting in the MODE SET [PAGE 2] menu.



VPS (Video Programme System) Function (SLV-777VP only)

The German broadcasting system transmits VPS signals with the TV programmes which assure that your timer recording will be performed without missing any portion of it regardless of any earliness, time delay, extension, or broadcast interruption which might occur during that programme.

■ Operation

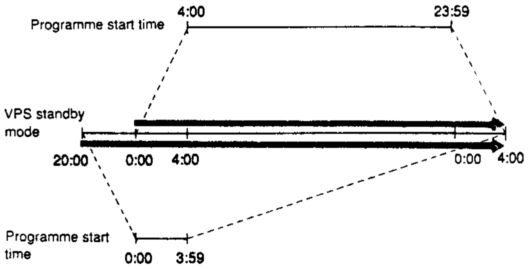
1 **Check whether VPS is transmitted with the programme to be recorded.**

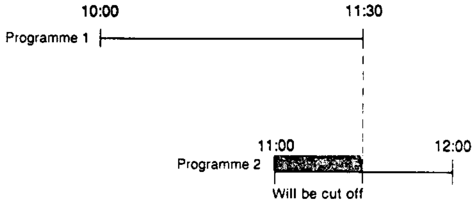
2 **Press VPS ON/OFF so that the VPS indicator lights in the display window.**

3 **Set the timer referring to "Timer Activated Recording — Operation."**

Notes

- The VPS button is effective only when the TIMER REC indicator is turned off.
- If the VPS signal was not received on the VTR because it was too weak or because the station failed to transmit, timer recording will be performed without the VPS function regardless of the VPS indication.
- The recording will stop when the VTR receives a VPS programme interruption code during recording, for example, when an urgent news bulletin was inserted. As soon as the interrupted programme resumes, recording will continue.
- The timer title will not be recorded, regardless of the setting in the MODE SET [PAGE 2] menu, when the VPS function is activated.





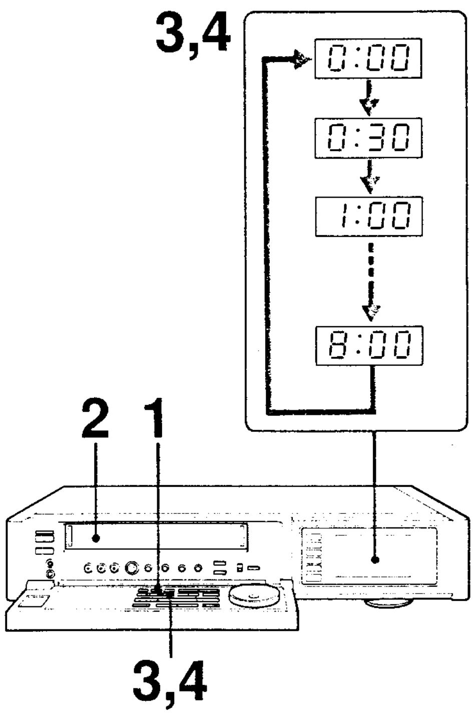
- **VPS standby mode**
  The VTR will enter the standby mode for VPS recording far before the turn-on time and remains in the standby mode passed the preset turn-on time until the VPS signal is received to prepare for any change in the actual broadcast time.

  When the VPS timer recording is set for a programme which is expected to start between 4:00 and 23:59, the VTR will enter the standby mode at 0:00 that day and will keep on waiting for the VPS signal until 4:00 of the next day.

  When the VPS timer recording is set for a programme which is expected to start between 0:00 and 3:59, the VTR will enter the standby mode at 20:00 the day before the recording day and will keep on waiting for the VPS signal until 4:00 on the next day.

- **If the actual recording time overlaps with the next timer recording programme**
  There may be cases when the actual broadcast time of two timer recording programmes overlap owing to the shift made by the VPS signal. In this case, the programme that was broadcast first always has priority. The recording of the second programme will begin only after the first programme is over.

Quick Timer Recording



What is Quick Timer Recording?

The quick timer recording function provides a short cut to enter the timer recording mode or to use the timer to turn off the VTR after recording is over.
The timer can be set to operate within 8 hours in units of 30 minutes.

Operation

If you are recording, skip steps **1** to **3**.

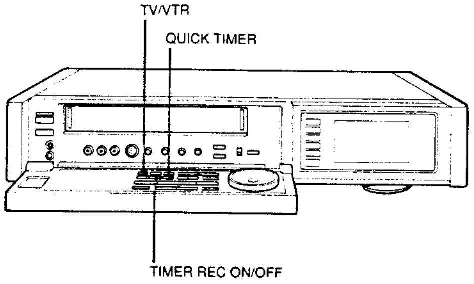
1 **Press INPUT SELECT so that TUNER indicator is turned on.**

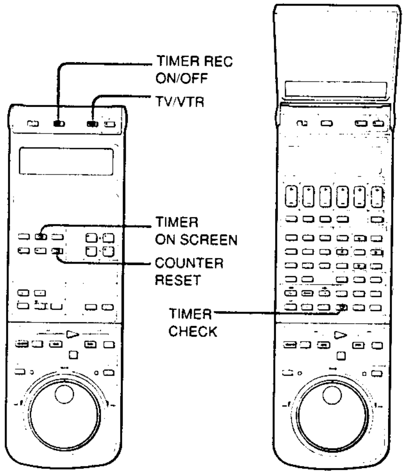
2 **Insert a cassette.**

3 **Press QUICK TIMER.**
The TIMER indicator lights in the display window. While 0:00 and programme position number is blinking in the display window, select the desired programme number with PROGRAM +/–.
A cassette with its safety tab removed will be ejected.

4 **Press QUICK TIMER again to start recording.**
Press QUICK TIMER again to set the recording duration within 30 seconds from step **3**, otherwise the power will be turned off. Each press of QUICK TIMER changes the indication in the display window in units of 30 minutes.

5 **The recording duration will decrease minute by minute until 0:00 when the VTR is automatically turned off.**





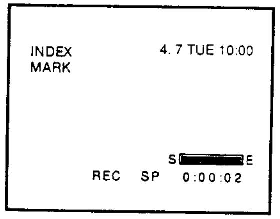
■ **Buttons operable during quick timer recording**

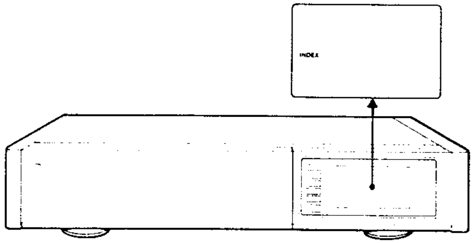
- **TIMER REC ON/OFF** stops quick timer recording.
- **QUICK TIMER** changes the recording duration.
- **TIMER ON SCREEN** displays the programme list.
- **TIMER CHECK** changes the programme number in the display window.
- **COUNTER RESET** resets the counter to zero.
- **TV/VTR** switches the screen to another programme received on the TV.

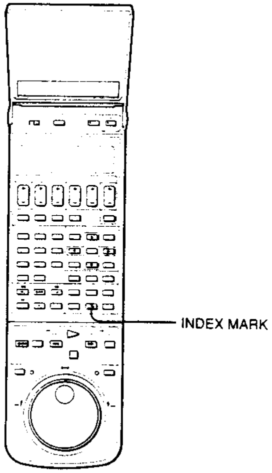
If power interruption occurs during quick timer recording
Recording will stop and the VTR will be turned off. If the power interruption lasted for less than three hours and if the power recovered within the quick timer duration, recording will resume from that instant.

If the VTR is in timer recording standby mode
Press TIMER REC ON/OFF to turn off the indicator, then follow steps 4 and 5.

Index Function







Marking Index Signals

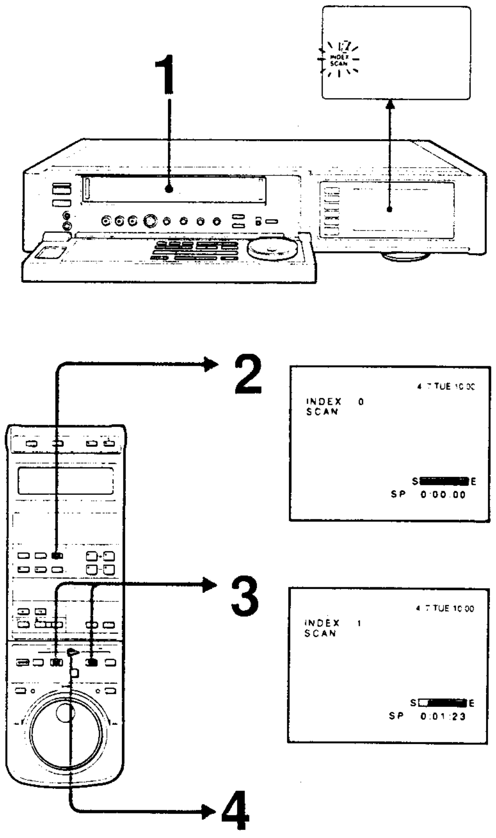
The desired position on a tape can be located easily by detecting the index signals. There are two ways in which to mark index signals: automatic and manual. When the index signal is being marked, INDEX flashes in the display window and the INDEX MARK display will appear on the screen.

■ **Automatic index mark**
An index signal is automatically marked on the tape when the VTR starts recording.

■ **Manual index mark**
Index signals can be marked at desired scenes during recording or normal playback. Press INDEX MARK to mark an index.

Notes

- Leave an interval of more than 2 minutes between two index points so that the VTR can detect each INDEX signal accurately.
- The recorded sound will not be heard while marking an index signal. But the audio signal will not be erased.
- Index signals cannot be marked
  - – on a tape whose safety tab is removed
  - – on an unrecorded portion of the tape.
  - – immediately before a point on the tape where the tape speed (LP or SP) changes.


1
INDEX
SCAN
2
4 7 TUE 10:00
INDEX 0
SCAN
S E
SP 0:00:00
3
4 7 TUE 10:00
INDEX 1
SCAN
S E
SP 0:01:23
4

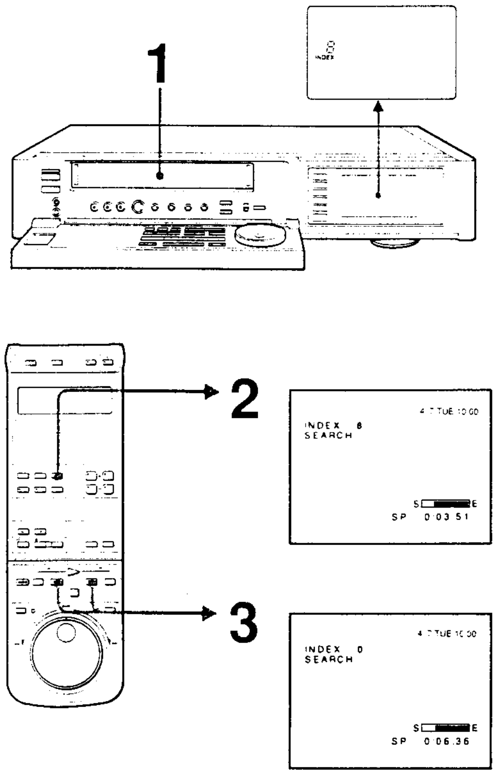
Playing Back from the Index Point — INDEX SCAN

1 **Insert a cassette with index signals marked.**

2 **Press INDEX once.**
INDEX or SCAN indicator blinks alternately in the display window.

3 **Press ◀◀ to play back from the previous programme.**
Press ▶▶ to play back from the programme ahead.
The VTR will advance to the next or previous index signal. Then the VTR will play the tape for approximately 10 seconds, and then move to the next index in the selected direction. The index number changes one by one.

4 **Press ▶ when the desired index signal is detected.**


1
8
INDEX
2
4 7 TUE 10:00
INDEX 8
SEARCH
S E
SP 0:03:51
3
4 7 TUE 10:00
INDEX 0
SEARCH
S E
SP 0:06:36

Locating an Index — INDEX SEARCH

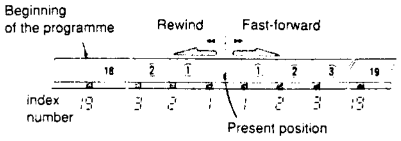
Direct search of the desired index point can be performed by entering the number of how many indexes ahead or behind it is from the current tape position. The VTR counts down how many more indexes should be searched for and displays the sequence in the display window. Up to 19 indexes from the preset position can be searched.

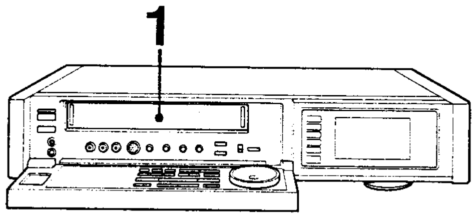
1 **Insert a cassette with index signals marked.**

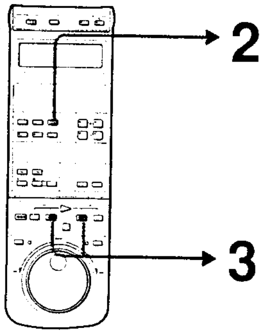
2 **Press INDEX to show how many indexes should be counted to reach the desired scene.**

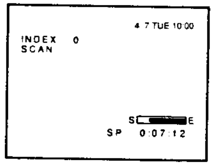
3 **Press ◀◀ if the index is behind or ▶▶ if the index is ahead of the current tape position.**
The VTR starts searching and the index number will be counted down to zero.

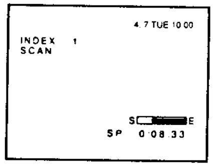
4 **Playback from the desired point starts.**

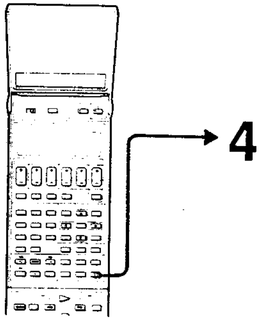

Beginning of the programme
Rewind
Fast-forward
18
2
1
1
2
3
19
index number
19
3
2
1
1
2
3
19
Present position

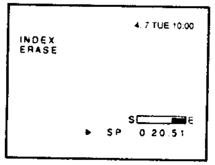





4.7 TUE 10:00
INDEX 0
SCAN
S E
SP 0:07:12


4.7 TUE 10:00
INDEX 1
SCAN
S E
SP 0:08:33



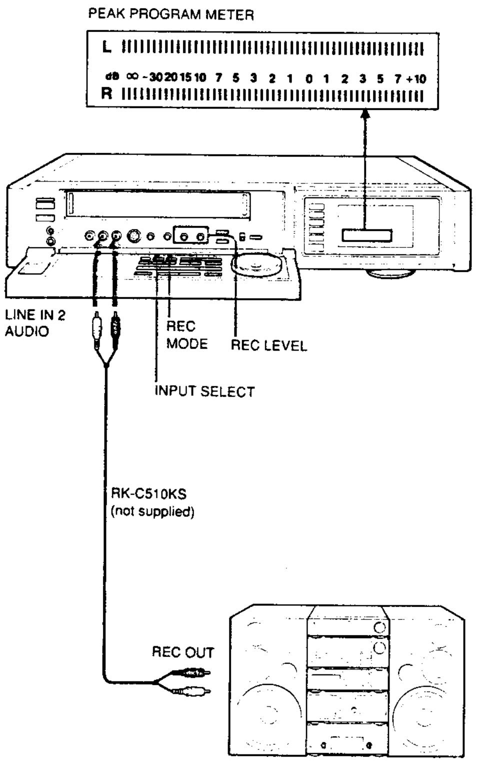

4.7 TUE 10:00
INDEX
ERASE
S E
▶ SP 0:20:51

Erasing an Index

The index marked on the tape can be erased.

1. **Insert a cassette with index signals marked.**
2. **Press INDEX once.**
3. **Press ◀◀ or ▶▶ to search for the index signal.**
   When the VTR detects an index signal, the VTR will play the tape for approximately 10 seconds from the index. If that is the index you want to erase, go to step 4. If that is not the index you want to erase, wait until the desired index is searched.
4. **Press INDEX ERASE while the VTR is in step 3.**
   That index signal will be erased. While the index signal is being erased, the recorded sound will not be heard, but it will not be erased. After erasing, the VTR starts searching for an index signal again.

Audio Recording


PEAK PROGRAM METER
L
dB ∞ -30 20 15 10 7 5 3 2 1 0 1 2 3 5 7 +10
R
LINE IN 2
AUDIO
REC
MODE
REC LEVEL
INPUT SELECT
RK-C510KS
(not supplied)
REC OUT

The hi-fi recording system of this VTR allows recording of high quality stereo sound from an FM tuner, audio system, or other audio equipment.

Before You Begin

- Connect your audio system to the LINE IN 2 AUDIO jacks using the RK-C510KS audio connecting cable (not supplied).
- Set INPUT SELECT to LINE L2.
- Select REC MODE, SP or LP.

Adjusting the Audio Recording Level

Play the recording source. While observing the PEAK PROGRAM METER, adjust the REC LEVEL controls referring to the following guide.

When recording from a conventional record: The right-most element (+10) should light up sometimes.

When recording from a compact disc or PCM processor: The right-most element (+10) should light up only at the highest signal level.

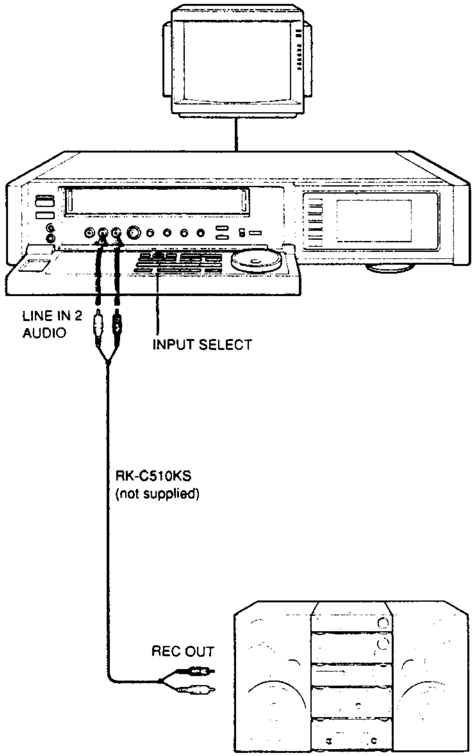
Recording

The recording procedure is the same as "Recording TV Programmes" on page 40.

PCM Recording and Playback

You can perform PCM recording and playback on the video track by connecting a PCM digital audio processor to the LINE IN and OUT VIDEO jacks on this VTR. For details, refer to the instruction manual of the PCM digital audio processor.

Caution
To avoid damaging the speakers due to a wide dynamic range of a hi-fi recorded tape/disc, turn down the volume of the TV before playing back a hi-fi recorded tape/disc.



Simulcast Recording

You can record TV programme and the sound from other equipment such as an FM tuner, simultaneously. The audio signals from the TV receiver are recorded on the normal audio track and those from the connected equipment on the video track.

■ **Before you begin**
- Connect your audio equipment to the EURO-AV (LINE 1) connector or the LINE IN 2 AUDIO jacks.
- The EURO-AV (LINE 3) connector cannot be used for a simulcast recording.
- Press INPUT SELECT on this VTR to indicate SIMUL in the display window.
- Other settings are the same as "Audio recording" on the previous page.

■ **To set SIMUL AUDIO IN**
Select the audio input to which your audio equipment is connected.

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE. The MODE SET [PAGE 1] menu appears.

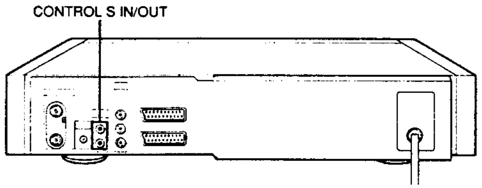
4 **Move cursor with ▲ or ▼ to SIMUL AUDIO IN.**

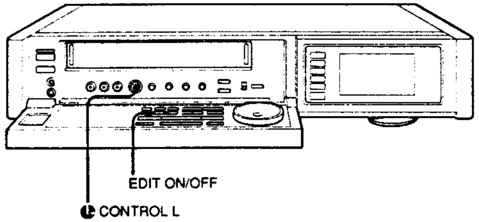
5 **Move the dot with ◀ or ▶ to L1 or L2 to which your audio equipment is connected.**

6 **Press EXE to store the setting and return to the original screen.**

■ **Operation**
The recording procedure is the same as "Recording TV programmes" on page 40.

Tape Editing



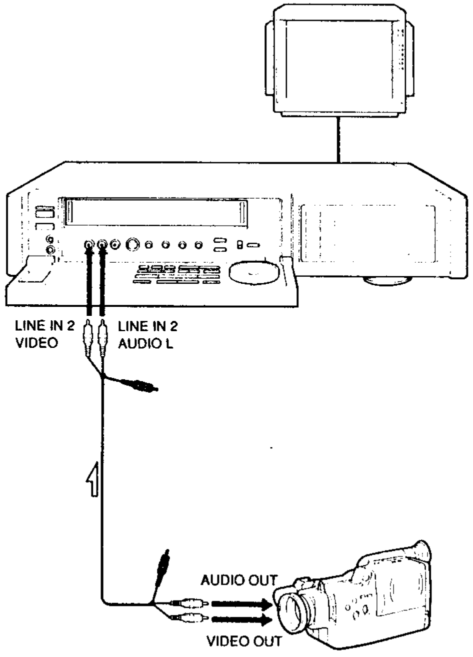


Before You Begin

You can create your own video programme by editing with other VTRs. Take a look at the following examples to expand your pleasure in video operation.

■ **Use of the Sony control terminals**
If your second VTR is equipped with Sony control terminals, CONTROL L or CONTROL S output or input, synchronized editing can be performed. Synchronized editing enables remote control of this VTR's playback/recording start and pause by the other VTR.
See pages 72 through 77.

■ **Use of the EDIT mode**
The EDIT mode activated by the EDIT ON/OFF button on the VTR enables recording and playback of higher quality pictures during editing. If the other VTR is equipped with this function, turn it on. However, note that even when using the EDIT mode during editing, the quality of the edited tape will have a certain extent of degradation in picture and sound. Avoid using the edited tape for multiple generations of editing.



Editing from another VTR

Using this VTR as a recording VTR and an 8 mm video camera recorder as a playback VTR.

■ Before you begin

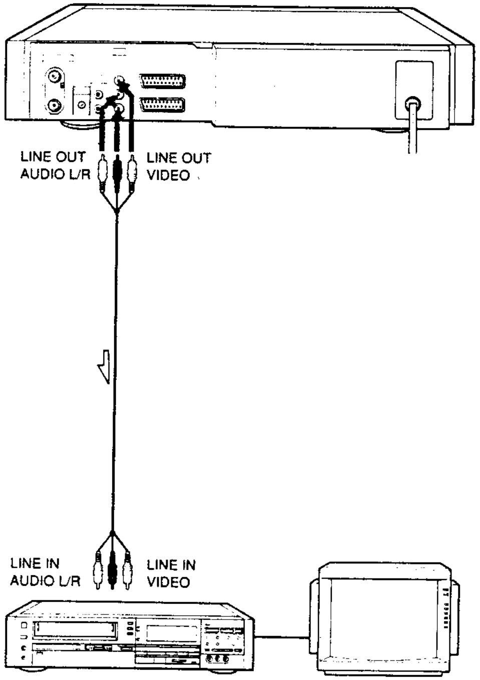
- Make connections using the supplied video/audio connecting cable as illustrated.
- If the other VTR is a monaural type as shown in the illustration, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. If the other VTR is a stereo type, make connections with both the red and white plugs.
- Press INPUT SELECT on this VTR to indicate LINE L1, LINE L2 or LINE L3 to match the jack to which you have connected the other VTR.
- Activate the EDIT mode on both VTRs.
- Select the recording tape speed, SP or LP.

■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Play back on the playback VTR and record with this VTR.**

Note
The mark indicates the signal flow.



Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

■ Before You Begin

- Make connections using the supplied video/audio connecting cable as illustrated. If the other VTR is a monaural type, make connections with the VMC-910MS/920MS video/audio connecting cable (not supplied).
- Press AUDIO MONITOR on the Commander to select the sound to be recorded.
- Press DATA SCREEN on the Commander to erase the data screen.
- Activate the EDIT mode on both VTRs.
- Select the line input on the other VTR.

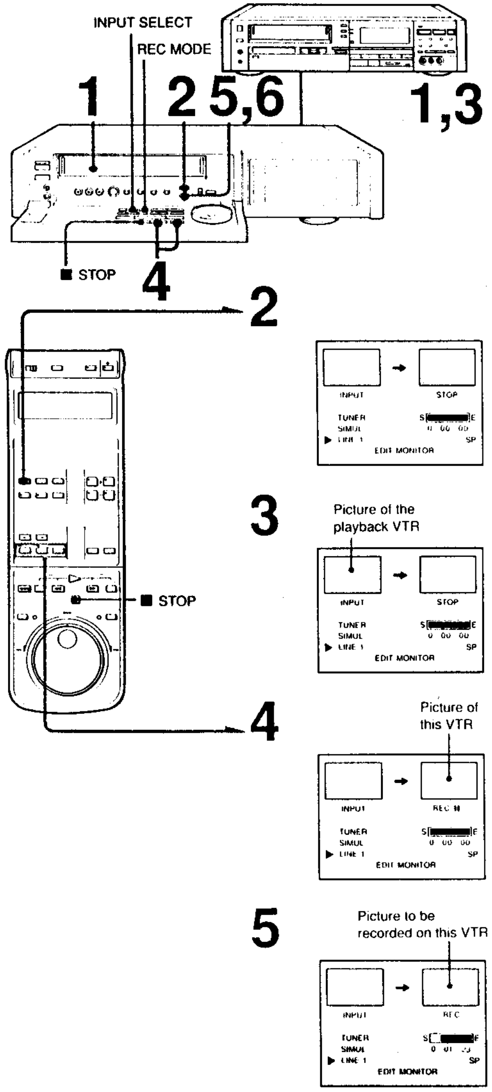
■ Operation

1 **Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.**

2 **Play back on this VTR and record with the recording VTR.**

Note
Do not connect the same VTR to both the LINE IN and LINE OUT jacks of this VTR. This may cause hum noise.

Synchronized Editing -Operation



Synchronized Editing From Another VTR

Using this VTR as a recording VTR and another VTR as a playback VTR.

■ Before You Begin

- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Press EDIT MONITOR.**

3 **On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**
If the VTR is equipped with the EDIT switch, set it to ON.

4 **On this VTR, locate the recording starting point and set the VTR to the recording pause mode.**

5 **Press SYNCHRO EDIT.**
Playback and recording will start on each VTR. The EDIT mode will be activated automatically.

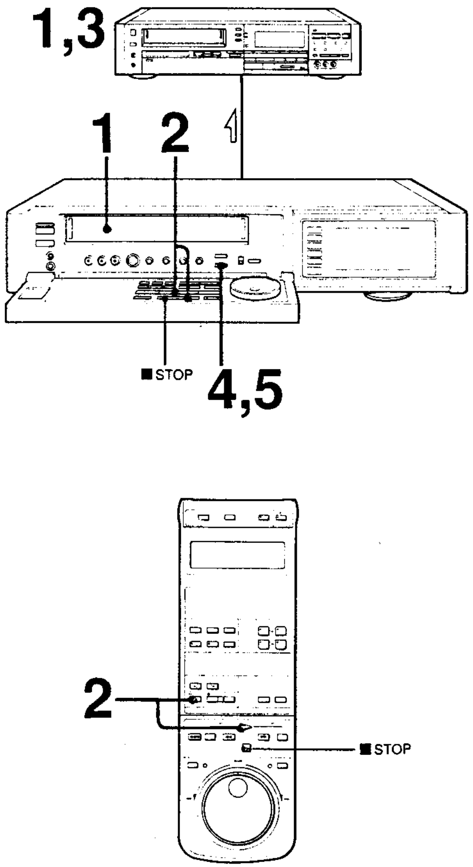
6 **To stop editing, press SYNCHRO EDIT.**

7 **To edit more scenes, repeat steps 3, 5 and 6.**

After editing, press ■ STOP on both VTRs.

Notes

- For considering of the rise time of the player, the recording will start approximately 1 second after the playback pause mode is released.
- When this VTR is used as the recording VTR and the SYNCHRO EDIT indicator lights, if the variable speed picture, such as the slow speed or double speed picture is played back on the playback VTR, the variable speed picture will be recorded.



Synchronized Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

■ Operation

1 **Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.**

2 **On this VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**

3 **On the recording VTR, locate the recording starting point and set the VTR to the recording pause mode.**

4 **Press SYNCHRO EDIT.**
After a tape is rewound a little, playback will start on this VTR. The recording will start at the assigned recording starting point.
The EDIT mode will be activated automatically.

5 **To stop editing, press SYNCHRO EDIT.**

6 **To edit more scenes, repeat steps 2, 4 and 5.**

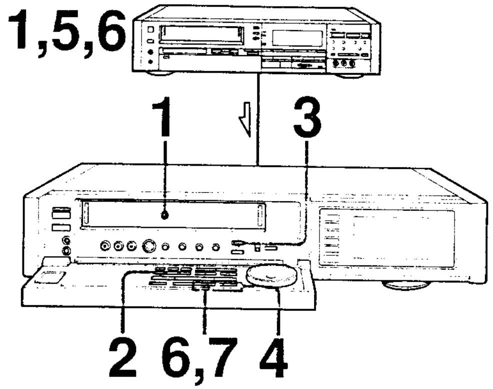
After editing, press ■ STOP on both VTRs.

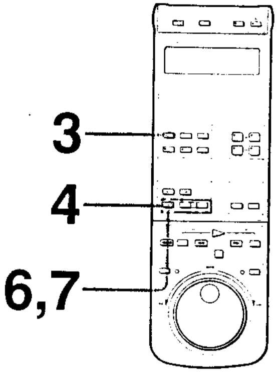
When using the synchronized editing function of another Sony VTR
When the VTRs are connected via the CONTROL S jacks, set COMMAND MODE of this VTR to VTR 1 or VTR 2. With VTR 3 setting, this VTR may not be operated.

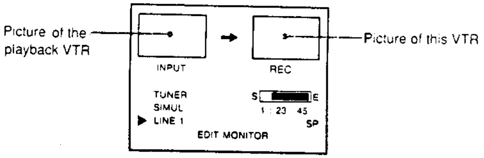
Note
Do not operate the buttons on the VTRs or Commander during editing. Doing so may cause a malfunction.

Manual Editing

-Editing with a VTR Equipped with a Sony Control Terminal






Picture of the playback VTR
Picture of this VTR
INPUT
REC
TUNER
SIMUL
▶ LINE 1
S
E
1 : 23 45
SP
EDIT MONITOR

Using this VTR as a recording VTR and another VTR as a playback VTR.

For connections, see page 72 or 74. The CONTROL L or CONTROL S connection is not necessary.

■ Before You Begin

- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Press EDIT to light the EDIT indicator in the display window.**

3 **Press EDIT MONITOR.**

4 **On this VTR, locate the recording starting point and set the VTR to the recording pause mode.**

5 **On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**
If the VTR is equipped with the EDIT switch, set it to ON.

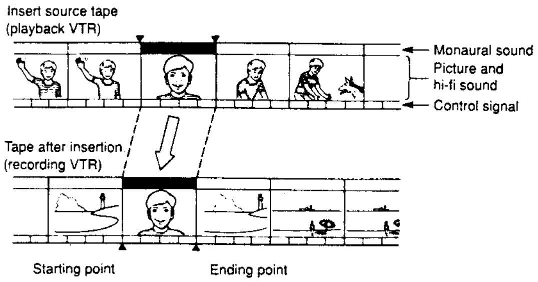
6 **Press II PAUSE of both VTRs simultaneously to start editing.**

7 **To stop editing, press II PAUSE of this VTR.**

8 **To edit more scenes, repeat steps 5 to 7.**

After editing, press ■ STOP on both VTRs.

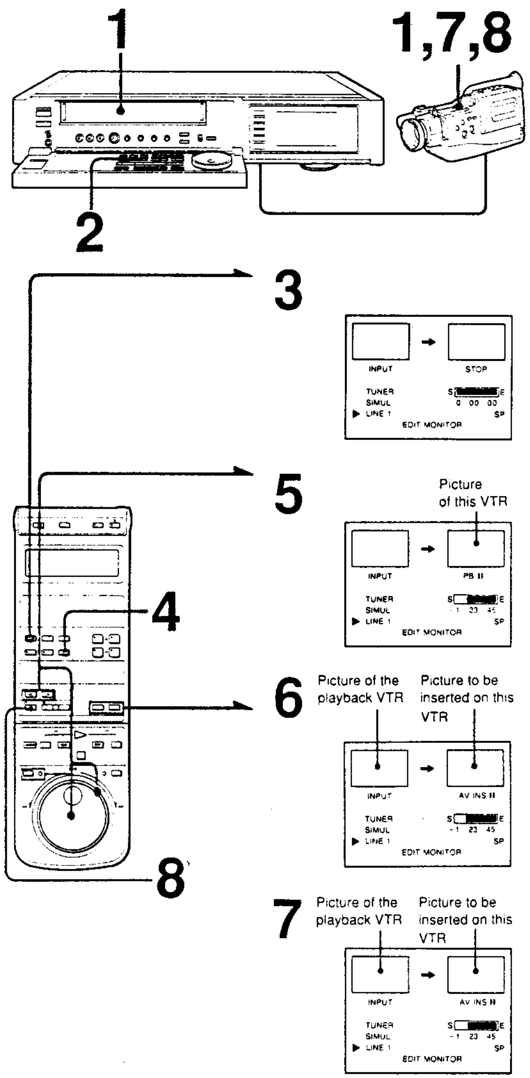
Insert Editing


Insert source tape (playback VTR)
Monaural sound
Picture and hi-fi sound
Control signal
Tape after insertion (recording VTR)
Starting point
Ending point

You can easily insert a new picture and/or sound onto a pre-recorded tape. This editing is useful to replace an unnecessary scene (sound) with another scene (sound).

■ Before You Begin

- For connection, see page 72 or 74. (The CONTROL L or CONTROL S connection is not needed.)
- Select the insert source from the equipment connected to EURO-AV (LINE 1), LINE IN 2 and EURO-AV (LINE 3).



■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Press EDIT ON/OFF.**
If the playback VTR is equipped with the EDIT switch, set it to ON.

3 **Press EDIT MONITOR.**

4 **On this VTR, locate the ending point and press COUNTER RESET.**
The counter will show "0H00M00S" and the ending point will be memorized.

5 **On this VTR, locate the starting point and set the VTR to the playback pause mode.**
JOG/SHUTTLE or SHUTTLE EDIT are useful for this operation.

6 **Press VIDEO/AUDIO INSERT.**
For audio insert, press AUDIO.
For video insert, press VIDEO.
For audio and video insert, press AUDIO and then VIDEO or vice versa.
The indicator corresponding to the button pressed will light.

7 **On the playback VTR, locate the starting point where you want to start the insertion and set the VTR to the playback pause mode.**

8 **Press II PAUSE of both VTRs to start the insertion.**
At the ending point (0H00M00S), the insertion will stop automatically.

■ To stop the insertion temporarily

Press II PAUSE.

■ To stop on-going insertion

Press ■ STOP.

■ To turn off the EDIT MONITOR display

Press EDIT MONITOR.

When the VIDEO INSERT button is pressed
The picture and the sound on the hi-fi audio track will be inserted. (The sound on the normal audio track will be retained.)

When the AUDIO INSERT button is pressed
The sound on the normal audio track will be inserted. (The picture and the sound on the hi-fi audio track will be retained.)

When the VIDEO and AUDIO INSERT buttons are pressed
The picture, sound on the hi-fi audio track and the sound on the normal audio track will be inserted.

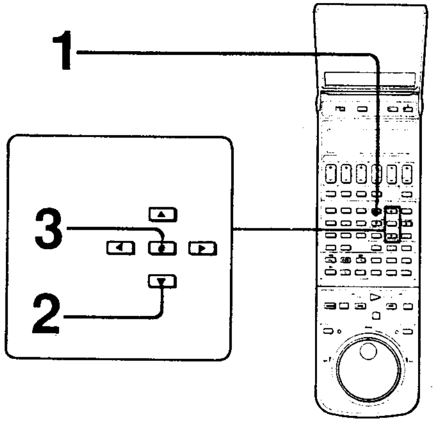
Notes
- The insertion cannot be made onto the unrecorded portion of a tape.
- After the insertion, the pre-recorded picture and or sound will be erased.

■ When the sound from the microphone is inserted

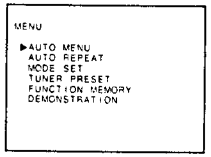
When the microphone is connected to the MIC jack, the sound from the microphone is automatically selected and it is recorded on the normal audio track. When VIDEO INSERT is pressed, the sound from the microphone cannot be recorded.

Note
The MIC jack of this VTR is adaptable with the use of a monaural mini plug.
If you connect a microphone with a stereo mini plug, use a plug adaptor such as the PC-236MS or the PC-236HMS.

The Menu System

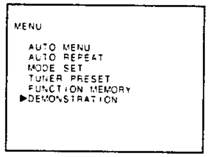


1



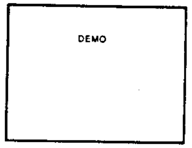
```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2



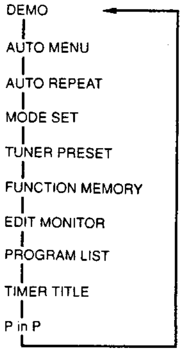
```
MENU

 AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
▶DEMONSTRATION
```

3



```
DEMO
```

4



Demonstration Menu

As you have noticed, many of the operations on this VTR are guided by the menu system. All of the menus are explained in sections where and when needed. However, to get an overview of the menu system, check the DEMONSTRATION menu which will give you a quick review of the MENU system.

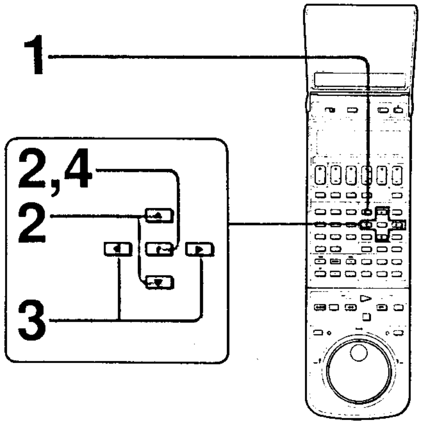
■ Operation

1 **Press MENU.**
The main MENU appears.

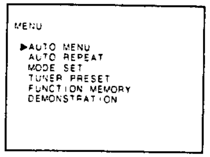
2 **Move cursor with ▲ or ▼ to DEMONSTRATION.**

3 **Press EXE.**

4 **The screen will change automatically as shown in the illustration.**
The DEMONSTRATION menu can be stopped at the desired screen by pressing EXE. Press EXE again to resume the DEMONSTRATION menu sequence. Press any button except for EXE to get out of the DEMONSTRATION mode.

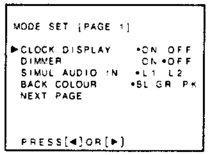


1



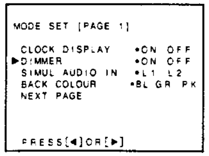
```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2

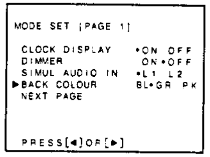


```
MODE SET [PAGE 1]

▶CLOCK DISPLAY     •ON  OFF
 DIMMER             ON •OFF
 SIMUL AUDIO IN    •L1  L2
 BACK COLOUR      •BL GR  PK
 NEXT PAGE



 PRESS[◀]OR[▶]
```

3

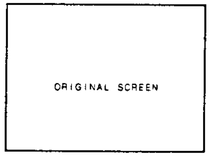


```
MODE SET [PAGE 1]

 CLOCK DISPLAY     •ON  OFF
▶DIMMER            •ON  OFF
 SIMUL AUDIO IN    •L1  L2
 BACK COLOUR      •BL GR  PK
 NEXT PAGE



 PRESS[◀]OR[▶]
```



```
MODE SET [PAGE 1]

 CLOCK DISPLAY     •ON  OFF
 DIMMER             ON •OFF
 SIMUL AUDIO IN    •L1  L2
▶BACK COLOUR       BL•GR  PK
 NEXT PAGE



 PRESS[◀]OR[▶]
```

4



```
ORIGINAL SCREEN
```

To Dim Out the Display Window

The indications in the display window can be dimmed out when the VTR is in the standby mode.

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET and press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE.

3 **Move cursor to DIMMER and select ON with ◀ to dim the indication.**

4 **Press EXE to store the setting and return to the original screen.**

To Select the Background Colour on the Screen

You can change the background colour on the screen when no picture is displayed or the MENU display is shown on the screen.

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET and press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor to PREVIOUS PAGE and press EXE.

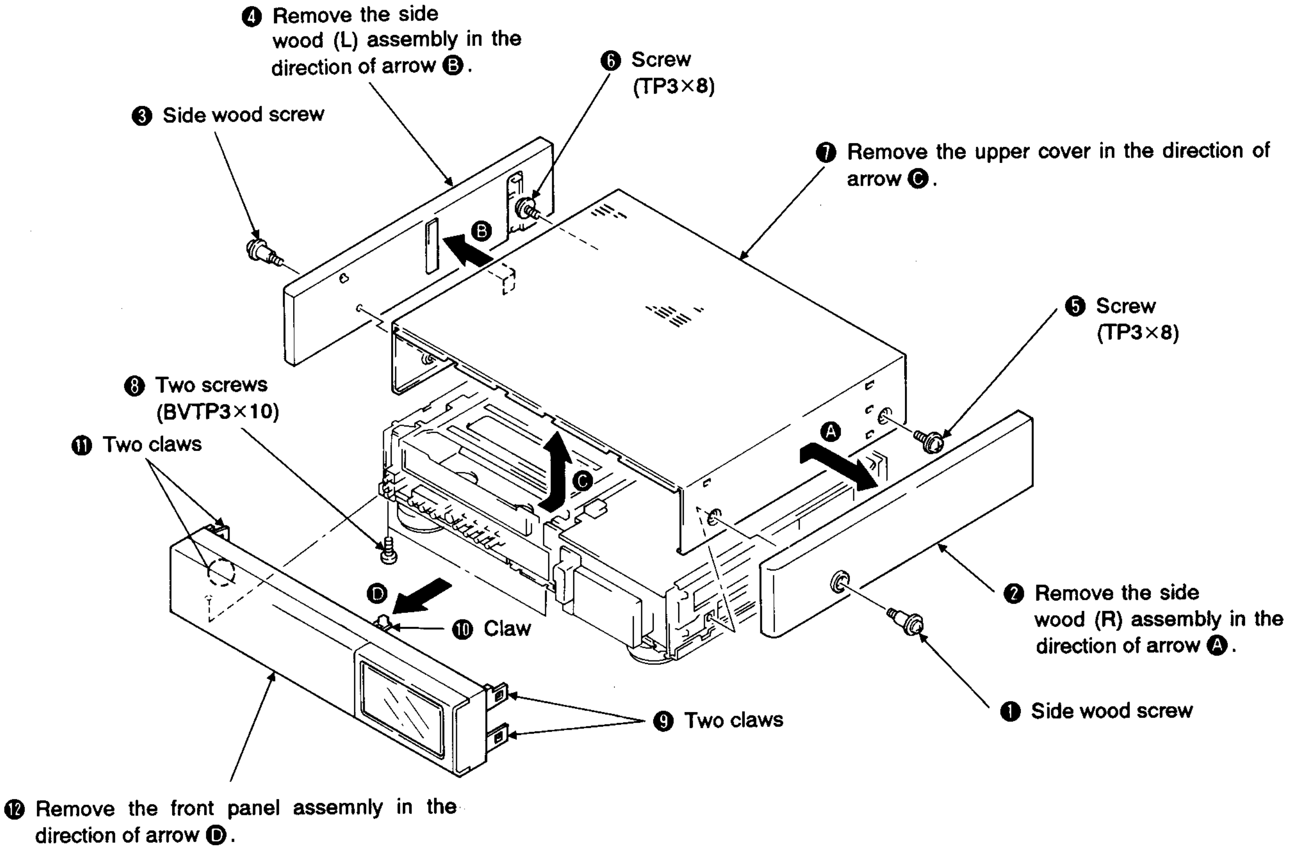
3 **Move cursor to BACK COLOUR and select the desired colour with ◀ or ▶.**

BL.....blue
GR....green
PK.....pink

4 **Press EXE to store the setting and return to the original screen.**

SECTION 2
DISASSEMBLY

2-1. REMOVAL OF FRONT PANEL AND CABINET ASSEMBLIES



❶ Side wood screw

❷ Remove the side wood (R) assembly in the direction of arrow Ⓐ.

❸ Side wood screw

❹ Remove the side wood (L) assembly in the direction of arrow Ⓑ.

❺ Screw (TP3×8)

❻ Screw (TP3×8)

❼ Remove the upper cover in the direction of arrow Ⓒ.

❽ Two screws (BVTP3×10)

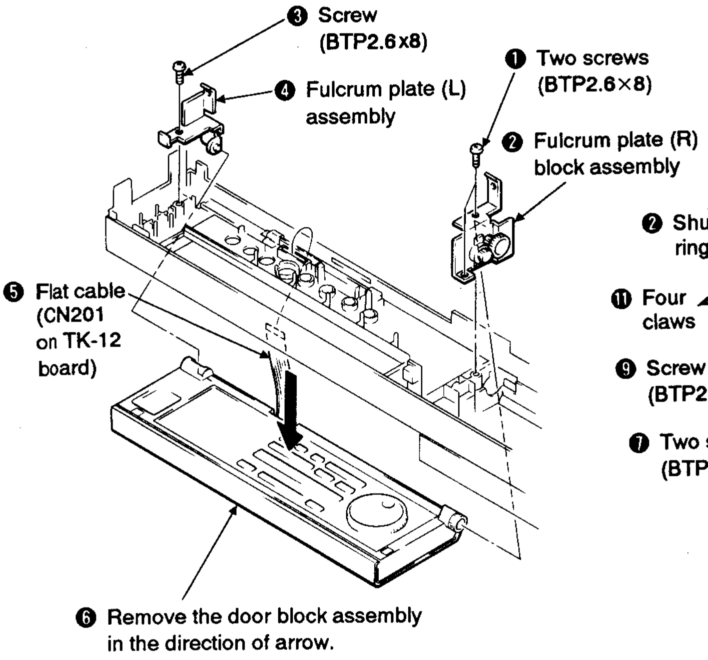
❾ Two claws

❿ Claw

⓫ Two claws

⓬ Remove the front panel assemnly in the direction of arrow Ⓓ.

2-2. REMOVAL OF DOOR BLOCK ASSEMBLY



❶ Two screws (BTP2.6×8)

❷ Fulcrum plate (R) block assembly

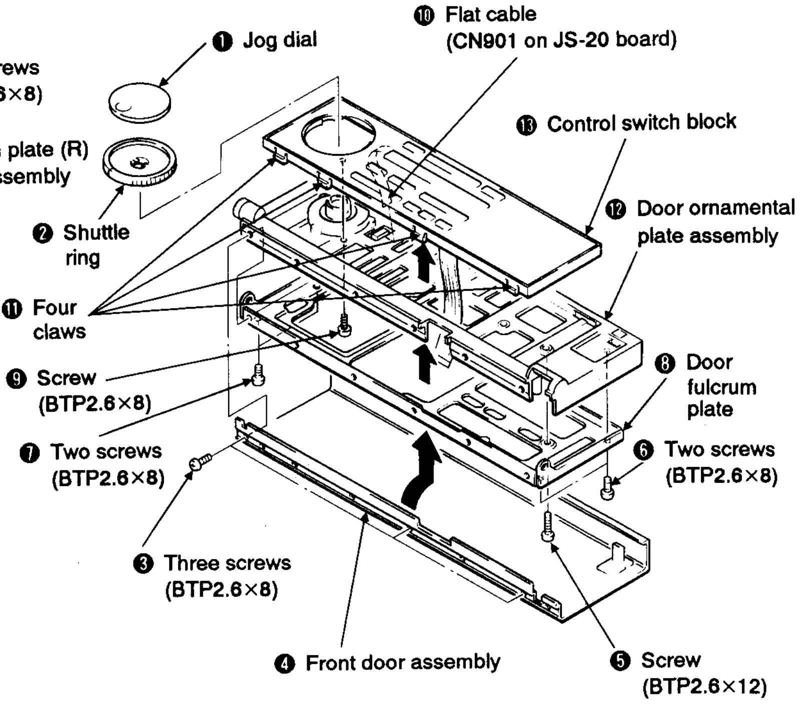
❸ Screw (BTP2.6x8)

❹ Fulcrum plate (L) assembly

❺ Flat cable (CN201 on TK-12 board)

❻ Remove the door block assembly in the direction of arrow.

2-3. REMOVAL OF CONTROL SWITCH BLOCK



❶ Jog dial

❷ Shuttle ring

❸ Three screws (BTP2.6×8)

❹ Front door assembly

❺ Screw (BTP2.6×12)

❻ Two screws (BTP2.6×8)

❼ Two screws (BTP2.6×8)

❽ Door fulcrum plate

❾ Screw (BTP2.6×8)

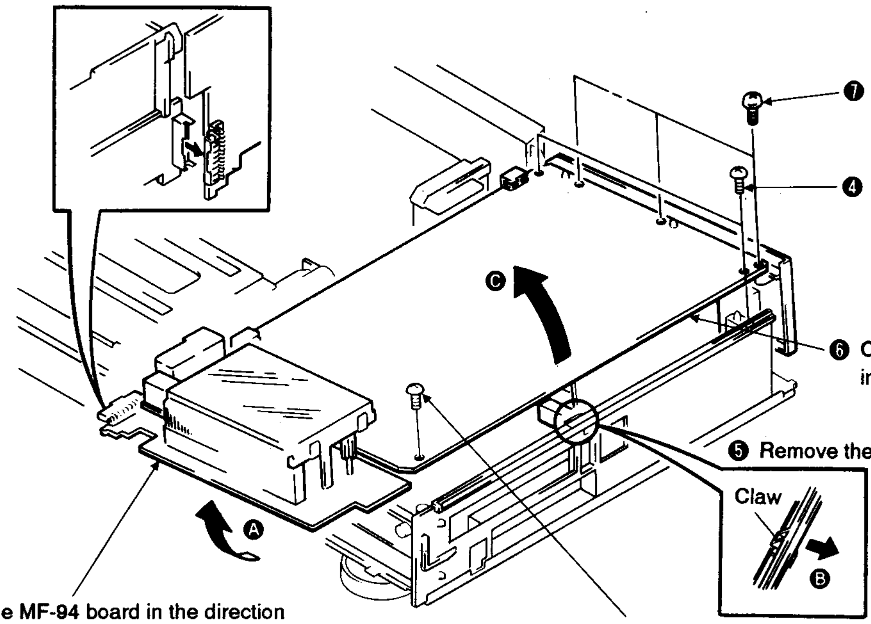
❿ Flat cable (CN901 on JS-20 board)

⓫ Four claws

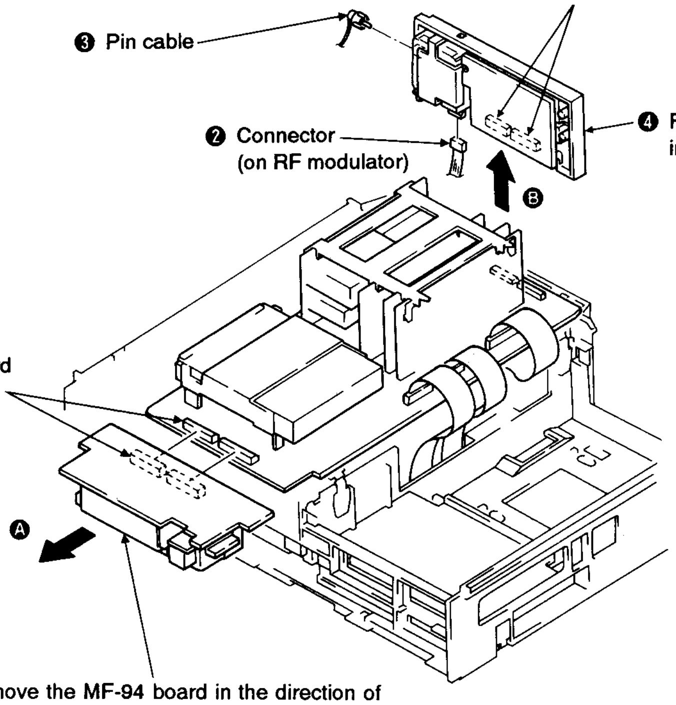
⓬ Door ornamental plate assembly

⓭ Control switch block

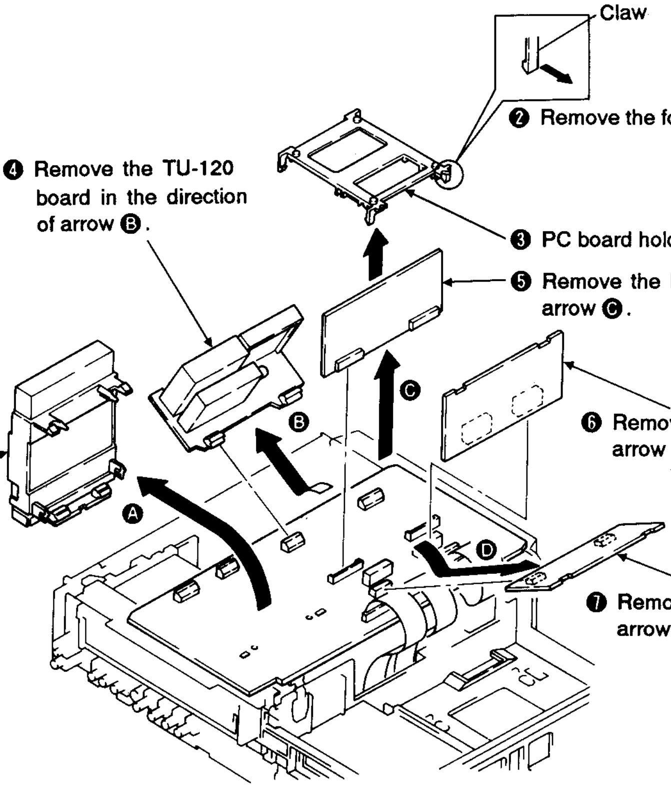
2-4. OPENING OF MA-62 BOARD


❶ Remove the board to board connector.
❼ Three screws
(BVTP3×10)
❹ Two screws
(BVTP3×10)
Ⓒ
❻ Open the MA-62 board
in the direction of arrow Ⓒ.
❺ Remove the claw in the direction
of arrowⒷ.
Claw
Ⓑ
Ⓐ
❷ Open the MF-94 board in the direction
of arrow Ⓐ.
❸ Screw
(BVTP3×10)

2-5. REMOVAL OF MF-94 BOARD AND TERMINAL BOARD BLOCK ASSEMBLY


Two board to board connectors
❸ Pin cable
❷ Connector
(on RF modulator)
❹ Remove the terminal board block assembly
in the direction of arrow Ⓑ.
Ⓑ
Two board to board
connectors
Ⓐ
❶ Remove the MF-94 board in the direction of
arrow Ⓐ.

2-6. REMOVAL OF TU-120, HF-9, PI-20, CG-10 BOARDS AND DG BLOCK ASSEMBLY



❶ Remove the DG block assembly in the direction of arrow Ⓐ.

❷ Remove the four claws.

❸ PC board holder

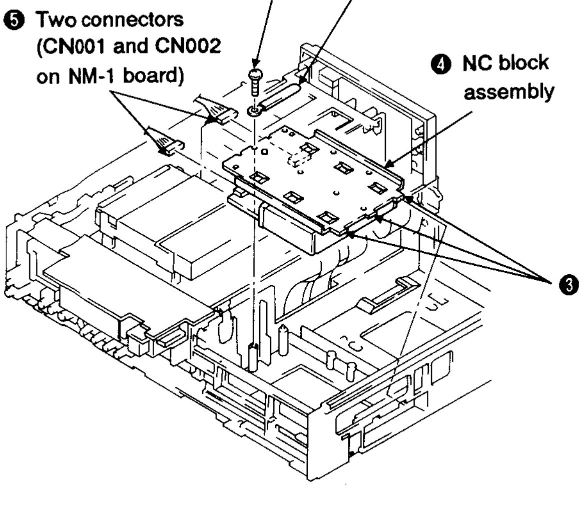
❹ Remove the TU-120 board in the direction of arrow Ⓑ.

❺ Remove the HF-9 board in the direction of arrow Ⓒ.

❻ Remove the PI-20 board in the direction of arrow Ⓒ.

❼ Remove the CG-10 board in the direction of arrow Ⓓ.

2-7. REMOVAL OF NC BLOCK ASSEMBLY (SLV-777UB/NC ONLY)



❶ Screw (BVTP3×10)

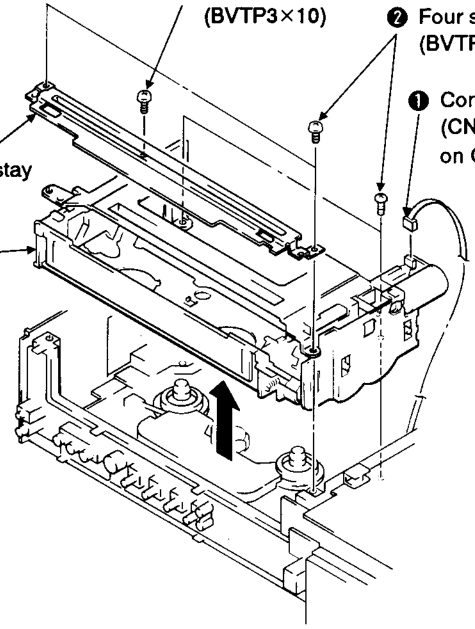
❷ Wire holder

❸ Remove the three claws.

❹ NC block assembly

❺ Two connectors (CN001 and CN002 on NM-1 board)

2-8. REMOVAL OF FL CASSETTE COMPARTMENT ASSEMBLY



❶ Connector (CN001 on CM-14 board)

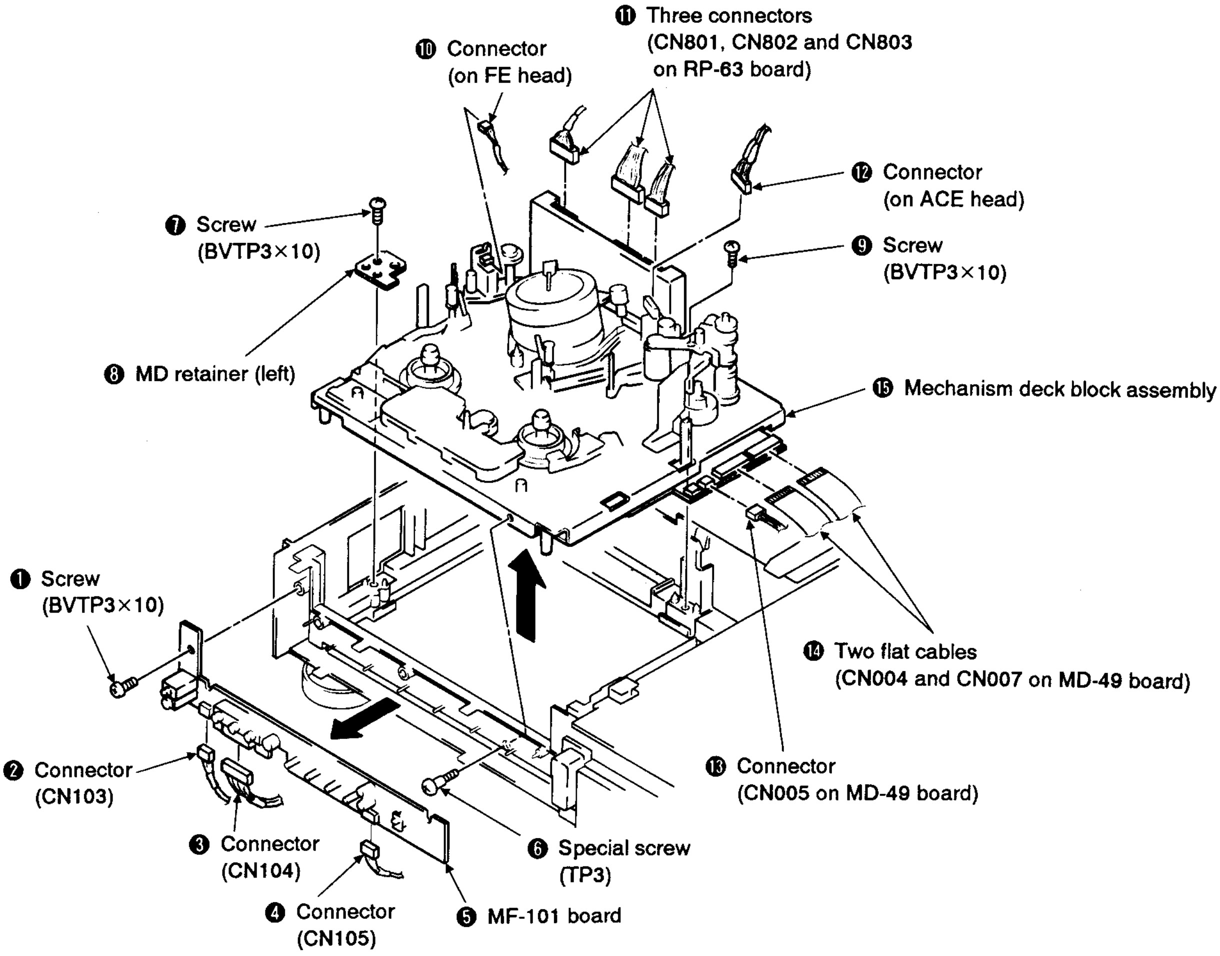
❷ Four screws (BVTP3×10)

❸ FL stay

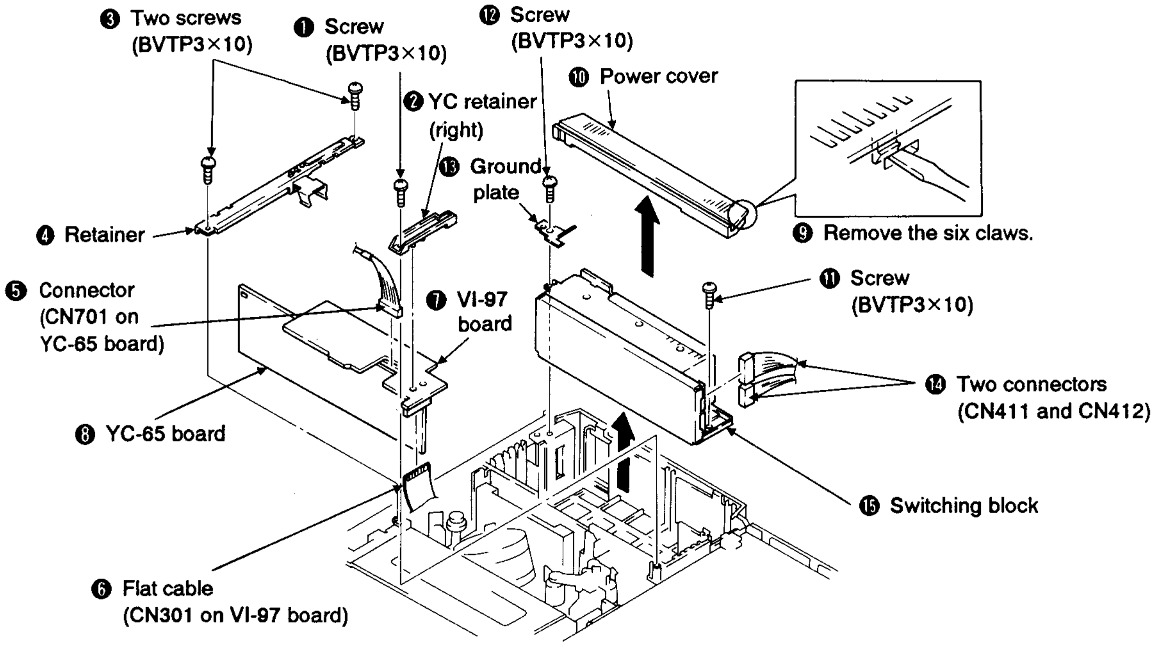
❹ Screw (BVTP3×10)

❺ FL cassette compartment assembly

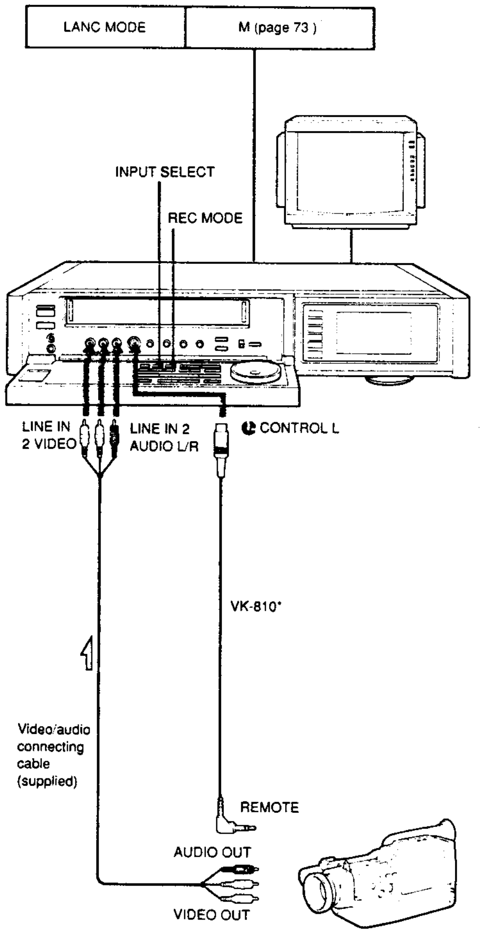
2-9. REMOVAL OF MF-101 BOARD AND MECHANISM DECK BLOCK ASSEMBLY


⑪ Three connectors (CN801, CN802 and CN803 on RP-63 board)
⑩ Connector (on FE head)
⑫ Connector (on ACE head)
⑦ Screw (BVTP3×10)
⑨ Screw (BVTP3×10)
⑧ MD retainer (left)
⑮ Mechanism deck block assembly
① Screw (BVTP3×10)
⑭ Two flat cables (CN004 and CN007 on MD-49 board)
② Connector (CN103)
⑬ Connector (CN005 on MD-49 board)
③ Connector (CN104)
⑥ Special screw (TP3)
④ Connector (CN105)
⑤ MF-101 board

2-10. REMOVAL OF VI-97, YC-65 BOARDS AND SWITCHING BLOCK


③ Two screws (BVTP3×10)
① Screw (BVTP3×10)
⑫ Screw (BVTP3×10)
⑩ Power cover
② YC retainer (right)
⑬ Ground plate
④ Retainer
⑨ Remove the six claws.
⑪ Screw (BVTP3×10)
⑤ Connector (CN701 on YC-65 board)
⑦ VI-97 board
⑭ Two connectors (CN411 and CN412)
⑧ YC-65 board
⑮ Switching block
⑥ Flat cable (CN301 on VI-97 board)

Synchronized Editing –Editing with a VTR Equipped with a Sony Control Terminal

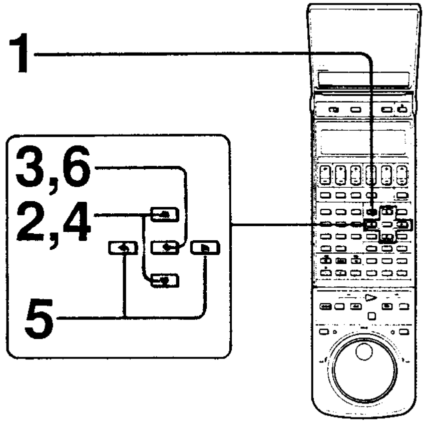


Connecting a VTR Equipped with a CONTROL L Connector

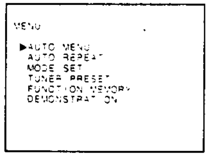
Using this VTR as a recording VTR and another VTR as a playback VTR.

- When the REMOTE connector of the other VTR is a stereo mini-mini plug, use the VK-810 connecting cable (not supplied).
  If it is a 5-pin DIN connector, use the VK-800 connecting cable (not supplied) instead of VK-810.
- If the other VTR is monaural, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. Connect nothing to LINE IN 2 AUDIO R.

Notes
- The cable with an* (asterisk) is not supplied.
- The →. mark indicates the signal flow.



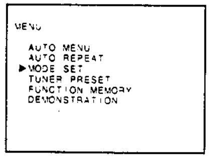
1



MENU

▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION

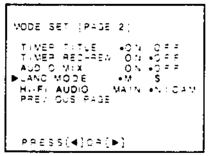
2



MENU

AUTO MENU
AUTO REPEAT
▶MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION

3,4,5

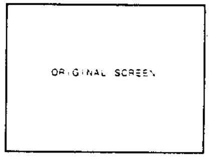


MODE SET [PAGE 2]

TIMER TITLE •ON OFF
TIMER REC-REW ON •OFF
AUDIO MIX ON •OFF
▶LANC MODE •M S
* HI-FI AUDIO MAIN •NICAM
PREVIOUS PAGE

PRESS[◀]OR[▶]

6



ORIGINAL SCREEN

*Hi-Fi AUDIO for SLV-777UB/777NC only

■ **To set LANC MODE**

When the other VTR is connected via the CONTROL L connector, you may select the LANC MODE which determines if this VTR controls the other VTR via the CONTROL L connector or it is controlled by the other VTR. This is LANC MODE.
To perform synchronized editing using the SYNCHRO EDIT button on this VTR, select LANC MODE M as follows:

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▼ or ▲ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET [PAGE 2] menu appears.

4 **Move cursor with ▼ or ▲ to LANC MODE.**

5 **Move the dot with ◀ to M when you control the other VTR through this VTR, and to S when you control this VTR through the other VTR.**

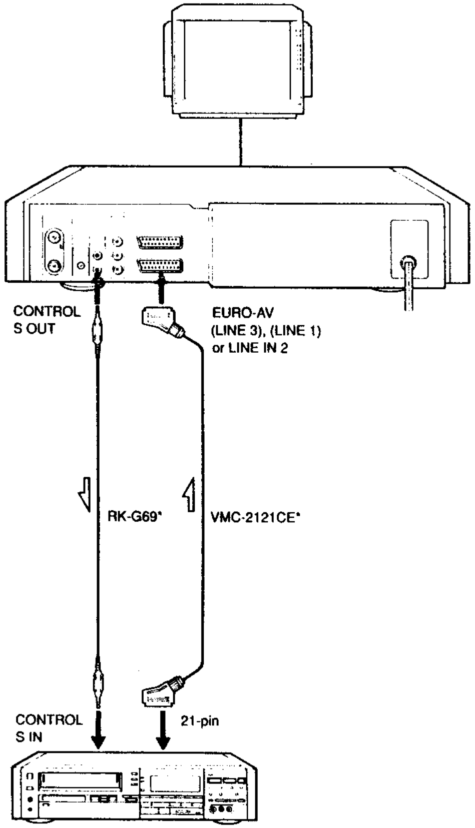
6 **Press EXE to store the setting and return to the original screen.**

■ **Operation**

See "Synchronized Editing from Another VTR" on page 76.

Using a Sony editing controller RM-E300
You can perform automatic assemble editing of up to 8 programmes. Select the LANC MODE S in the MODE SET [PAGE 2] menu.

About the LANC
LANC stands for Local Application Control Bus System. The LANC connector is used for controlling the tape transport of video equipment and peripherals connected to it. This connector has the same function as the connectors indicated as CONTROL L or REMOTE.


CONTROL S OUT
EURO-AV (LINE 3), (LINE 1) or LINE IN 2
RK-G69*
VMC-2121CE*
CONTROL S IN
21-pin

Connecting a VTR Equipped with a CONTROL S Input Jack

Using this VTR as a recording VTR and another VTR as a playback VTR.

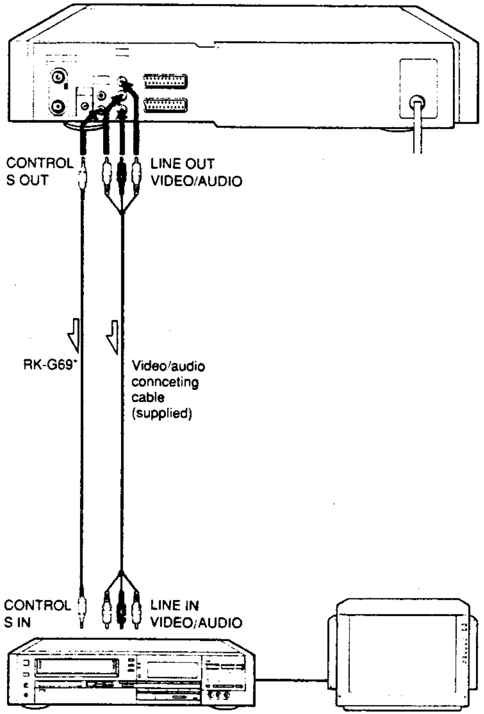
- When connecting the other VTR to LINE IN 2 on the front, use the supplied video /audio connecting cable. If the other VTR is monaural, connect to LINE IN 2 AUDIO L via the white plugs. This enables the sound to be separated into the right and left channels. Leave the red plugs unconnected.

Notes
- The cables with an * (asterisk) are not supplied.
- The mark indicates the signal flow.

■ Operation

See "Synchronized Editing from Another VTR" on page 76.

When a new scene is inserted onto the recorded tape
See "Insert Editing" on page 79.
The edited picture will be distorted at the editing end point.


CONTROL S OUT
LINE OUT VIDEO/AUDIO
RK-G69*
Video/audio connceting cable (supplied)
CONTROL S IN
LINE IN VIDEO/AUDIO

Connecting a VTR Equipped with a CONTROL S Input Jack

Using this VTR as a playback VTR and another VTR as a recording VTR.

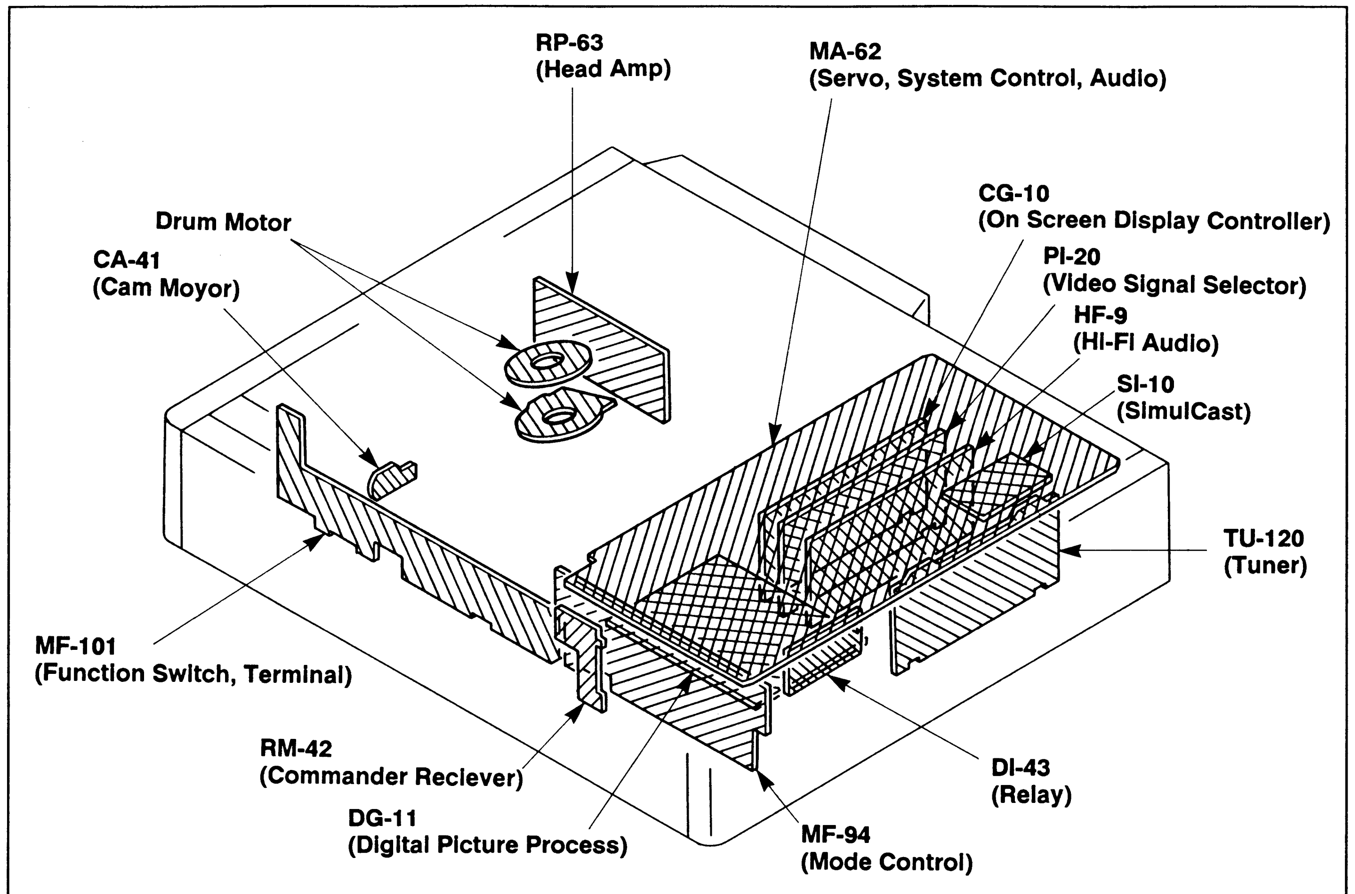
- If the other VTR is monaural, connect the VTR using the VMC-910MS 920MS video/audio connecting cable (not supplied).
- You can also connect the other VTR to EURO-AV (LINE 1) using the VMC-2121CE cable (not supplied).

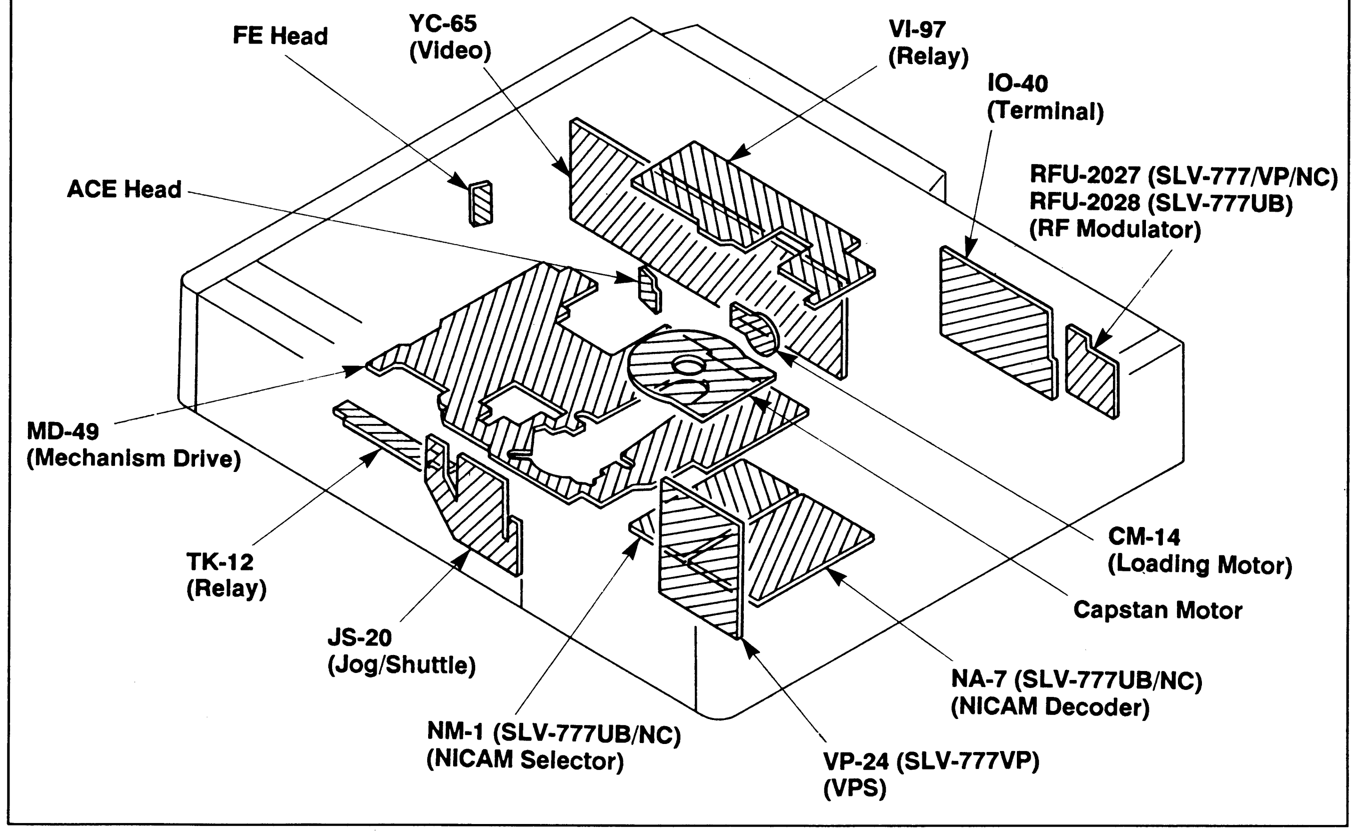
■ Operation

See "Synchronized Editing onto Another VTR" on page 77.

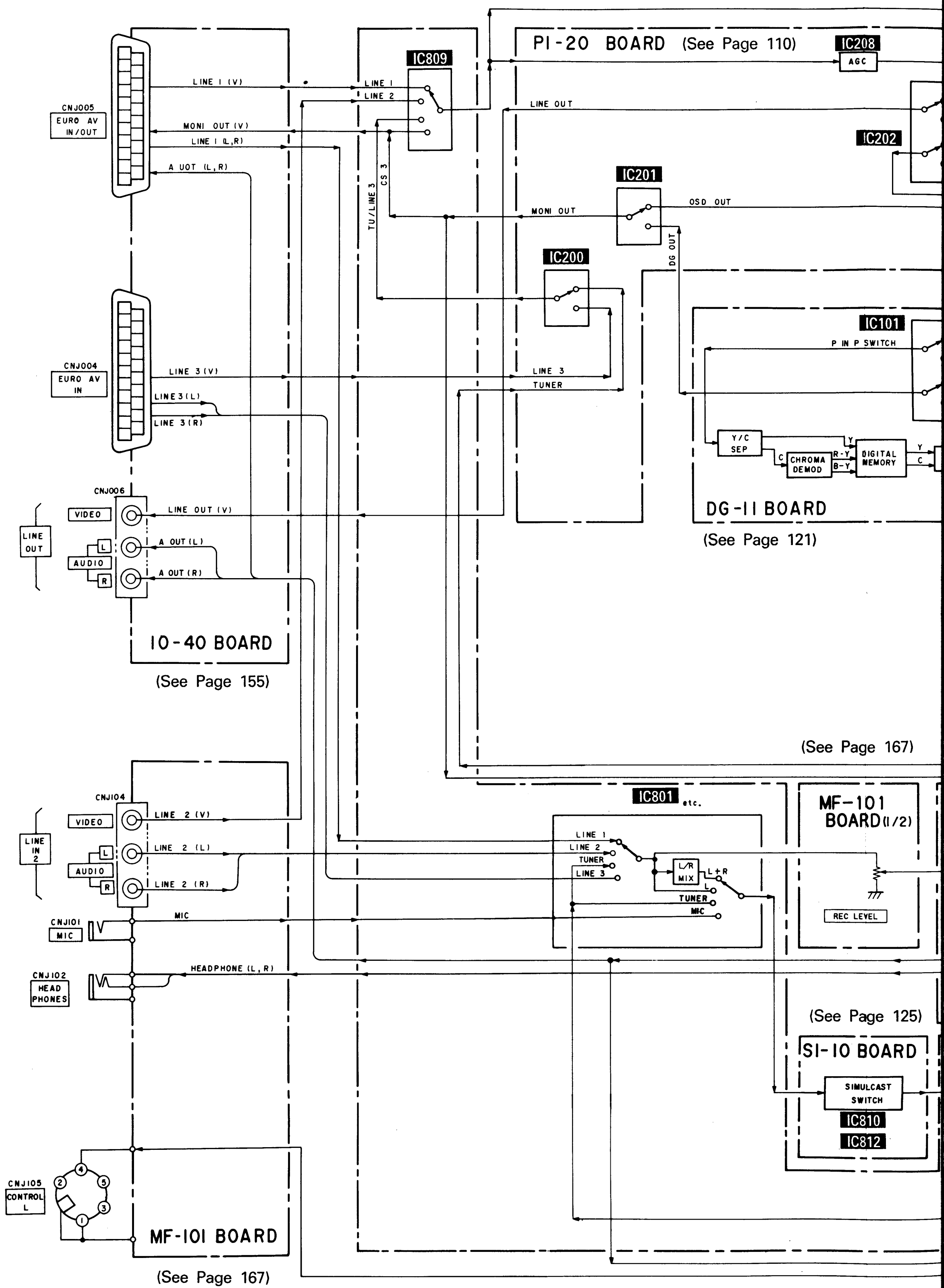
SECTION 3
DIAGRAMS

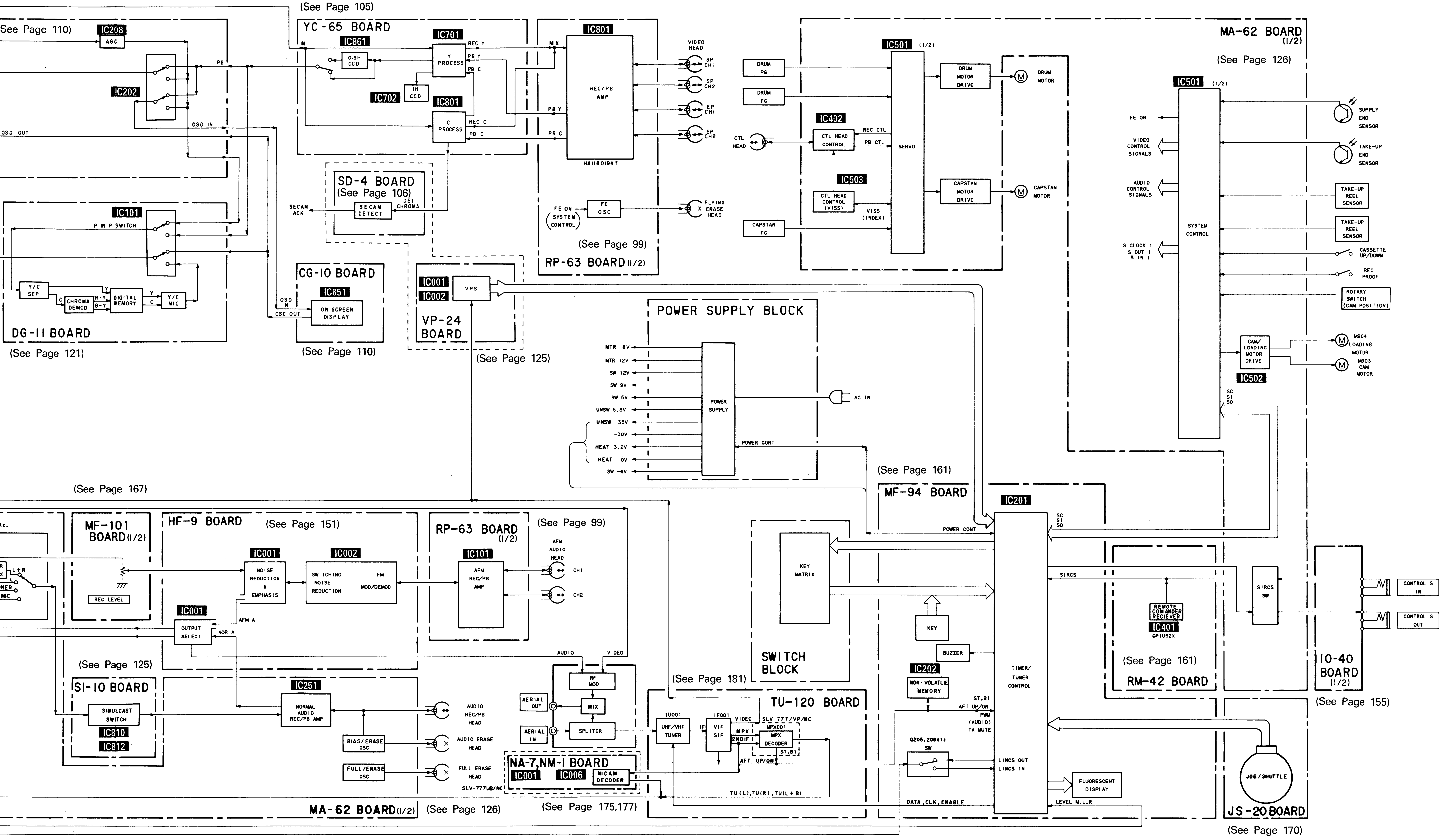
3-1. CIRCUIT BOARDS LOCATION


RP-63
(Head Amp)
MA-62
(Servo, System Control, Audio)
CG-10
(On Screen Display Controller)
PI-20
(Video Signal Selector)
HF-9
(Hi-Fi Audio)
SI-10
(SimulCast)
Drum Motor
CA-41
(Cam Moyor)
TU-120
(Tuner)
MF-101
(Function Switch, Terminal)
RM-42
(Commander Reciever)
DG-11
(Digital Picture Process)
MF-94
(Mode Control)
DI-43
(Relay)

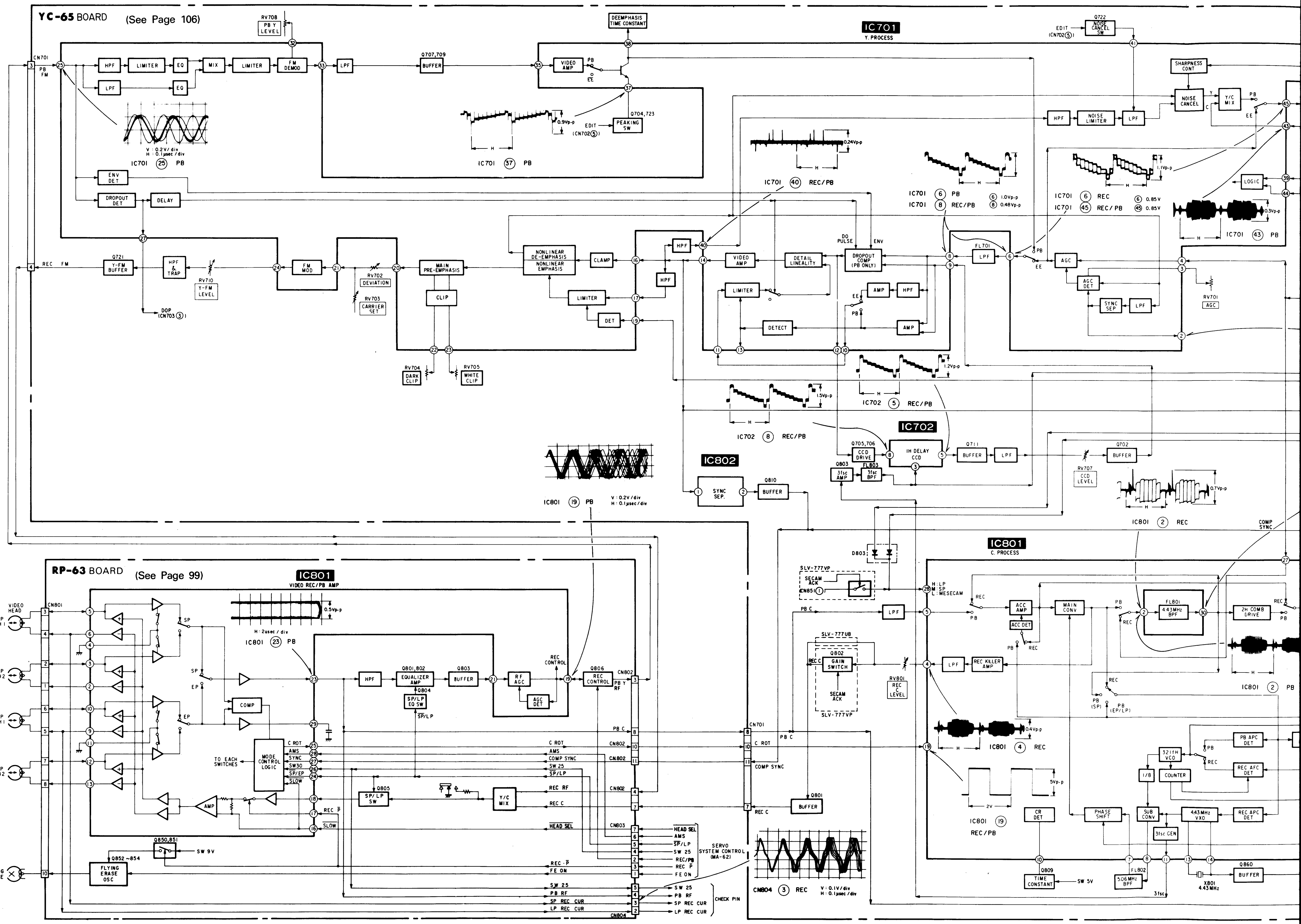

FE Head
YC-65
(Video)
VI-97
(Relay)
IO-40
(Terminal)
RFU-2027 (SLV-777/VP/NC)
RFU-2028 (SLV-777UB)
(RF Modulator)
ACE Head
MD-49
(Mechanism Drive)
TK-12
(Relay)
JS-20
(Jog/Shuttle)
NM-1 (SLV-777UB/NC)
(NICAM Selector)
VP-24 (SLV-777VP)
(VPS)
NA-7 (SLV-777UB/NC)
(NICAM Decoder)
CM-14
(Loading Motor)
Capstan Motor

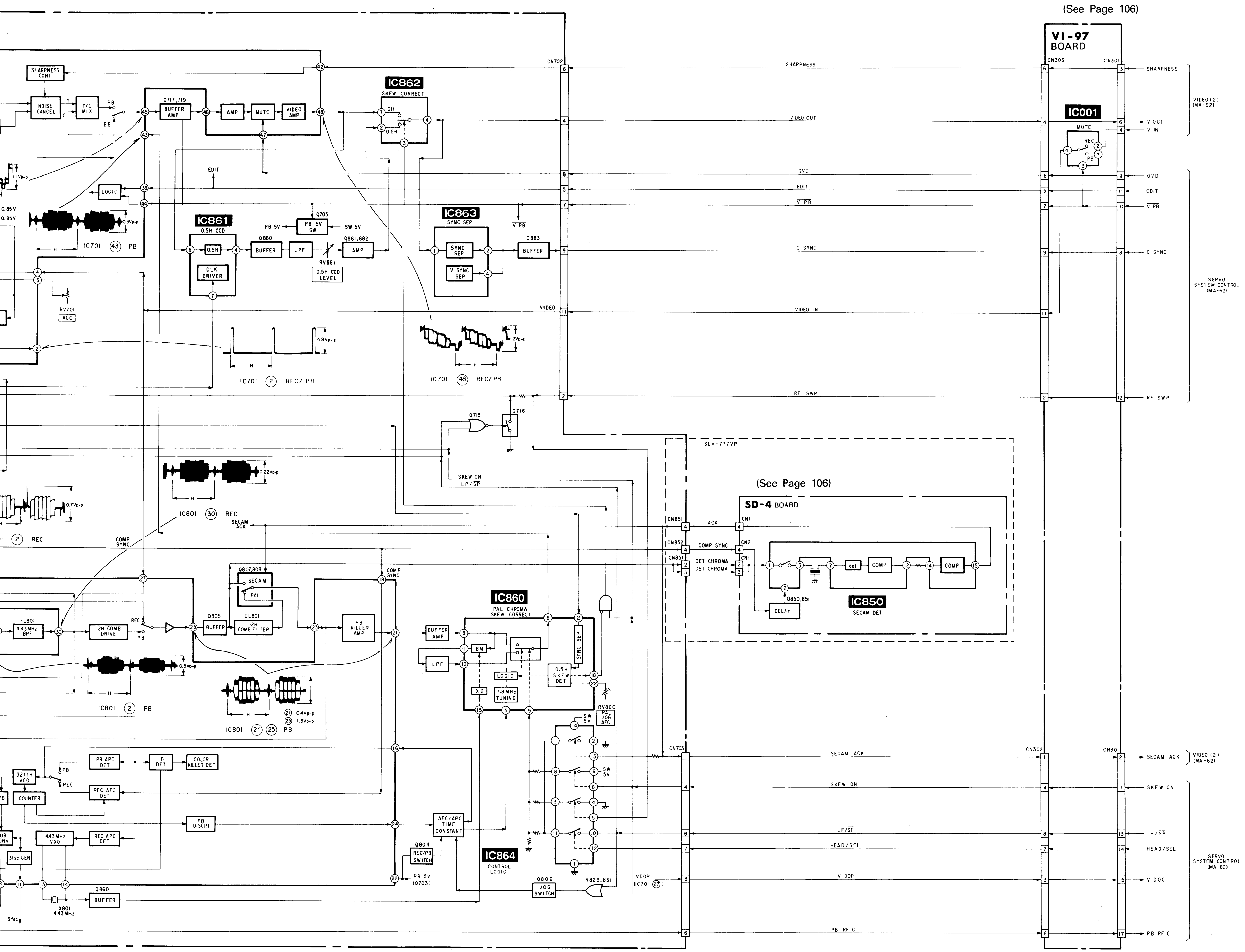
3-2. OVERALL BLOCK DIAGRAM


CNJ005
EURO AV IN/OUT
LINE 1 (V)
MONI OUT (V)
LINE 1 (L,R)
A OUT (L,R)
IC809
LINE 1
LINE 2
TU/LINE 3
CS 3
PI-20 BOARD (See Page 110)
IC208
AGC
LINE OUT
IC202
IC201
MONI OUT
OSD OUT
DG OUT
IC200
LINE 3
TUNER
IC101
P IN P SWITCH
Y/C SEP
CHROMA DEMOD
R-Y
B-Y
DIGITAL MEMORY
Y
C
DG-11 BOARD
(See Page 121)
CNJ004
EURO AV IN
LINE 3 (V)
LINE 3 (L)
LINE 3 (R)
CNJ006
LINE OUT
VIDEO
AUDIO
L
R
LINE OUT (V)
A OUT (L)
A OUT (R)
IO-40 BOARD
(See Page 155)
(See Page 167)
CNJ104
LINE IN 2
VIDEO
AUDIO
LINE 2 (V)
LINE 2 (L)
LINE 2 (R)
CNJ101
MIC
CNJ102
HEAD PHONES
HEADPHONE (L, R)
IC801 etc.
LINE 1
LINE 2
TUNER
LINE 3
L/R MIX
L+R
TUNER
MIC
MF-101 BOARD (1/2)
REC LEVEL
(See Page 125)
SI-10 BOARD
SIMULCAST SWITCH
IC810
IC812
CNJ105
CONTROL L
MF-101 BOARD
(See Page 167)

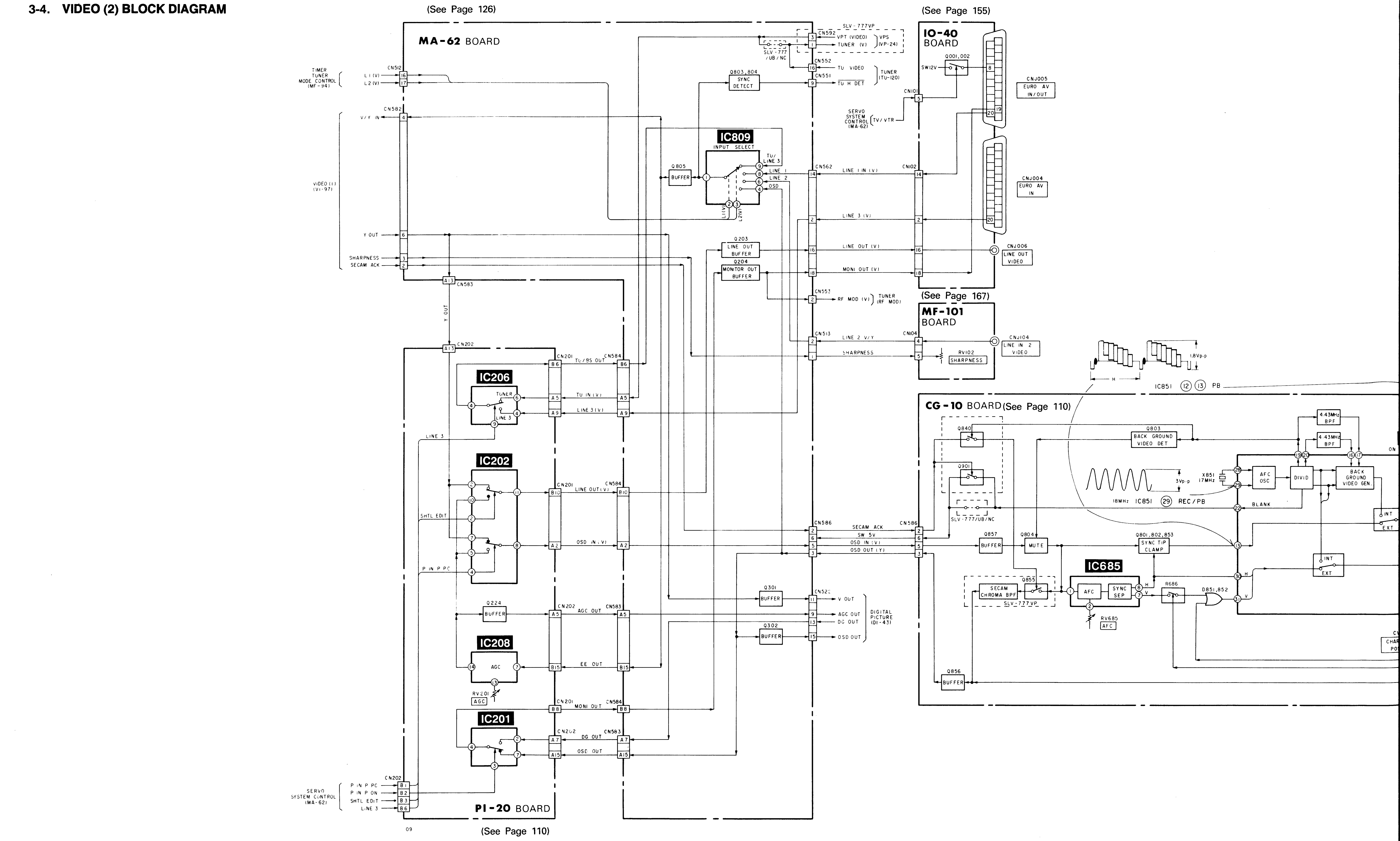

(See Page 110)
IC208
AGC
IC202
OSD OUT
OSD IN
PB
(See Page 105)
YC-65 BOARD
IC861
IN
0.5H CCD
IC701
Y PROCESS
REC Y
PB Y
PB C
IC702
1H CCD
IC801
C PROCESS
REC C
PB C
IC801
MIX
REC/PB AMP
HA118019NT
VIDEO HEAD
SP CH1
SP CH2
EP CH1
EP CH2
FE ON
SYSTEM CONTROL
FE OSC
FLYING ERASE HEAD
(See Page 99)
RP-63 BOARD (1/2)
SD-4 BOARD
(See Page 106)
SECAM ACK
SECAM DETECT
DET CHROMA
IC101
P IN P SWITCH
Y/C SEP
CHROMA DEMOD
R-Y
B-Y
DIGITAL MEMORY
Y/C MIC
DG-11 BOARD
(See Page 121)
CG-10 BOARD
IC851
OSD IN
OSC OUT
ON SCREEN DISPLAY
(See Page 110)
IC001
IC002
VPS
VP-24 BOARD
(See Page 125)
DRUM PG
DRUM FG
CTL HEAD
IC402
CTL HEAD CONTROL
REC CTL
PB CTL
IC503
CTL HEAD CONTROL (VISS)
VISS (INDEX)
CAPSTAN FG
IC501 (1/2)
SERVO
DRUM MOTOR DRIVE
DRUM MOTOR
CAPSTAN MOTOR DRIVE
CAPSTAN MOTOR
MA-62 BOARD (1/2)
(See Page 126)
IC501 (1/2)
FE ON
VIDEO CONTROL SIGNALS
AUDIO CONTROL SIGNALS
S CLOCK 1
S OUT 1
S IN 1
SYSTEM CONTROL
SUPPLY END SENSOR
TAKE-UP END SENSOR
TAKE-UP REEL SENSOR
TAKE-UP REEL SENSOR
CASSETTE UP/DOWN
REC PROOF
ROTARY SWITCH (CAM POSITION)
CAM/LOADING MOTOR DRIVE
IC502
M904 LOADING MOTOR
M903 CAM MOTOR
SC
SI
SO
POWER SUPPLY BLOCK
MTR 18V
MTR 12V
SW 12V
SW 9V
SW 5V
UNSW 5.8V
UNSW 35V
-30V
HEAT 3.2V
HEAT 0V
SW -6V
POWER SUPPLY
POWER CONT
AC IN
(See Page 167)
MF-101 BOARD (1/2)
REC LEVEL
L+R
NER
MIC
HF-9 BOARD
(See Page 151)
IC001
NOISE REDUCTION & EMPHASIS
IC002
SWITCHING NOISE REDUCTION
FM MOD/DEMOD
IC001
OUTPUT SELECT
AFM A
NOR A
RP-63 BOARD (1/2)
(See Page 99)
IC101
AFM REC/PB AMP
AFM AUDIO HEAD
CH1
CH2
(See Page 125)
SI-10 BOARD
SIMULCAST SWITCH
IC810
IC812
IC251
NORMAL AUDIO REC/PB AMP
BIAS/ERASE OSC
FULL/ERASE OSC
AUDIO REC/PB HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
SLV-777UB/NC
MA-62 BOARD (1/2)
(See Page 126)
AUDIO
VIDEO
RF MOD
AERIAL OUT
MIX
AERIAL IN
SPLITER
NA-7, NM-1 BOARD
IC001
IC006
NICAM DECODER
(See Page 175,177)
(See Page 181)
TU-120 BOARD
TU001
UHF/VHF TUNER
IF
IF001
VIF SIF
VIDEO
MPX
2ND IF
SLV 777/VP/NC
MPX001
MPX DECODER
ST.BI
AFT UP/ON
TU(L), TU(R), TU(L+R)
SWITCH BLOCK
KEY MATRIX
(See Page 161)
MF-94 BOARD
POWER CONT
KEY
BUZZER
IC202
NON-VOLATILE MEMORY
Q205, 206etc SW
IC201
TIMER/TUNER CONTROL
ST.BI
AFT UP/ON
PWM (AUDIO)
TA MUTE
LINCS OUT
LINCS IN
DATA, CLK, ENABLE
LEVEL M.L.R
FLUORESCENT DISPLAY
SIRCS
REMOTE COMMANDER RECIEVER
IC401
GP1U52X
(See Page 161)
RM-42 BOARD
SIRCS SW
CONTROL S IN
CONTROL S OUT
10-40 BOARD (1/2)
(See Page 155)
JOG/SHUTTLE
JS-20 BOARD
(See Page 170)

3-3. VIDEO (1) BLOCK DIAGRAM

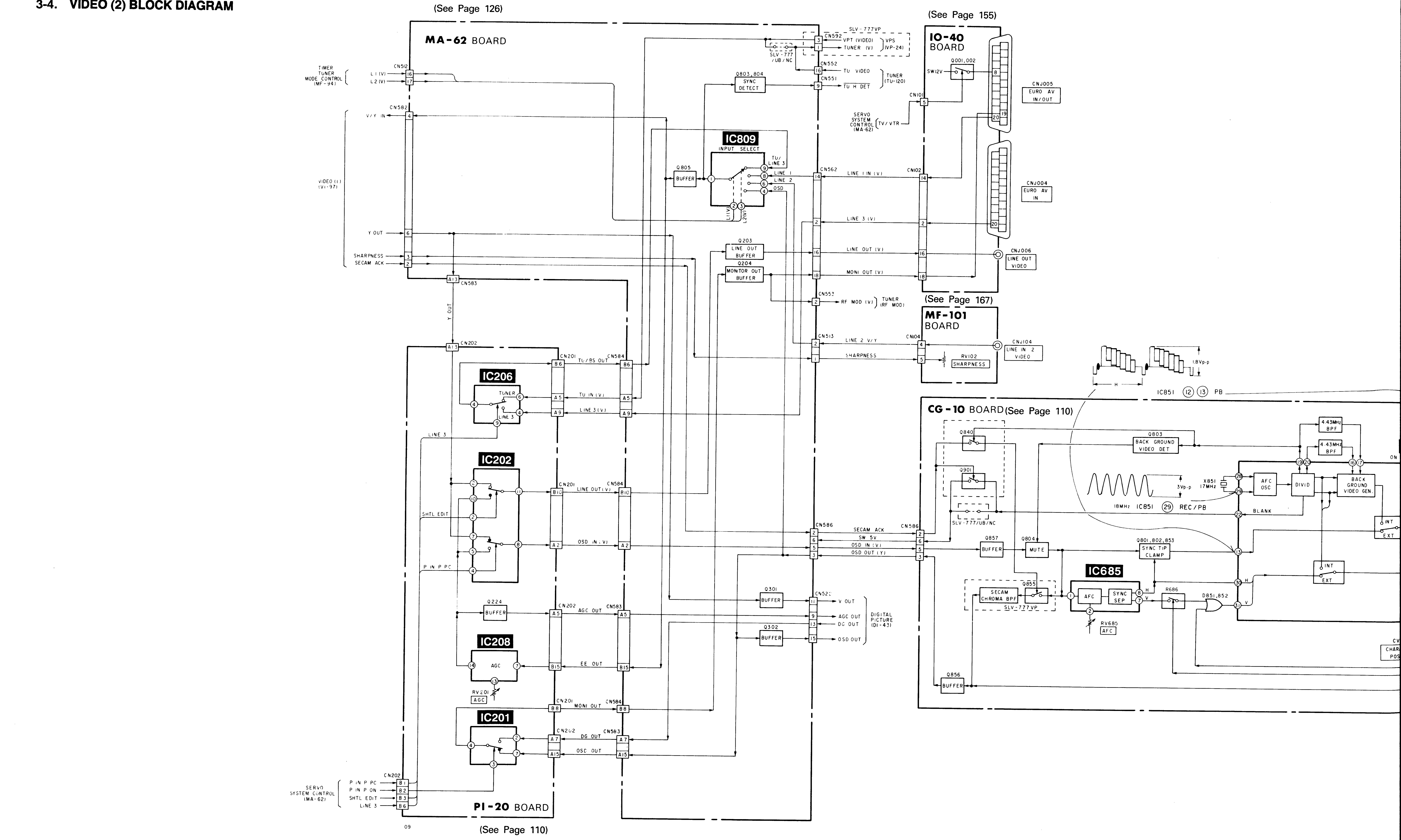

YC-65 BOARD (See Page 106)
IC701
Y. PROCESS
RV708 PB Y LEVEL
DEEMPHASIS TIME CONSTANT
HPF
LIMITER
EQ
MIX
FM DEMOD
LPF
Q707,709 BUFFER
VIDEO AMP
PEAKING SW
Q704,723
EDIT (CN702⑤)
IC701 ㉕ PB
IC701 ㊲ PB
V: 0.2V/div H: 0.1μsec/div
0.9Vp-p
ENV DET
DROPOUT DET
DELAY
Q721 Y-FM BUFFER
HPF & TRAP
RV710 Y-FM LEVEL
FM MOD
RV702 DEVIATION
RV703 CARRIER SET
MAIN PRE-EMPHASIS
CLIP
RV704 DARK CLIP
RV705 WHITE CLIP
NONLINEAR DE-EMPHASIS
NONLINEAR EMPHASIS
CLAMP
DET
DOP (CN703③)
IC701 ㊵ REC/PB
0.24Vp-p
DETAIL LINEALITY
DO PULSE
ENV
DROPOUT COMP (PB ONLY)
DETECT
AMP
FL701 LPF
IC701 ⑥ PB
IC701 ⑧ REC/PB
⑥ 1.0Vp-p
⑧ 0.48Vp-p
Q722 NOISE CANCEL SW
SHARPNESS CONT
NOISE CANCEL
Y/C MIX
NOISE LIMITER
IC701 ⑥ REC
IC701 ㊺ REC/PB
⑥ 0.85V
㊺ 0.85V
1.1Vp-p
LOGIC
0.3Vp-p
IC701 ㊸ PB
AGC
AGC DET
SYNC SEP
RV701 AGC
1.2Vp-p
IC702 ⑤ REC/PB
1.5Vp-p
IC702 ⑧ REC/PB
IC702
Q705,706 CCD DRIVE
1H DELAY CCD
Q711 BUFFER
Q702 BUFFER
RV707 CCD LEVEL
Q803 3fsc AMP
FL803 3fsc BPF
IC802
SYNC SEP.
Q810 BUFFER
0.7Vp-p
IC801 ② REC
IC801 ⑲ PB
V: 0.2V/div H: 0.1μsec/div
COMP SYNC
D803
SLV-777VP
SECAM ACK
CN851
H: LP M: SP L: MESECAM
IC801
C. PROCESS
ACC AMP
ACC DET
MAIN CONV
FL801 4.43MHz BPF
2H COMB DRIVE
IC801 ② PB
PB C
LPF
SLV-777UB
Q802 GAIN SWITCH
REC C
SECAM ACK
RV801 REC C LEVEL
REC KILLER AMP
0.4Vp-p
IC801 ④ REC
5Vp-p
IC801 ⑲ REC/PB
CR DET
Q809 TIME CONSTANT
SW 5V
PHASE SHIFT
321fH VCO
1/8
COUNTER
SUB CONV
3fsc GEN
4.43MHz VXO
X801 4.43MHz
Q860 BUFFER
FL802 5.06MHz BPF
PB APC DET
REC AFC DET
REC APC DET
CN701 PB C C ROT COMP SYNC REC C
Q801 BUFFER
CN804 ③ REC
V: 0.1V/div H: 0.1μsec/div
RP-63 BOARD (See Page 99)
IC801
VIDEO REC/PB AMP
VIDEO HEAD SP CH1 SP CH2 LP CH1 LP CH2
FLYING ERASE
CN801
0.5Vp-p
H: 2μsec/div
IC801 ㉓ PB
COMP
MODE CONTROL LOGIC
TO EACH SWITCHES
C ROT AMS SYNC SW30 SP/EP SLOW
HPF
Q801,802 EQUALIZER AMP
Q804 SP/LP EQ SW
Q803 BUFFER
RF AGC
AGC DET
REC CONTROL
Q806 REC CONTROL
PB Y RF
CN802
Q805 SP/LP SW
Y/C MIX
REC RF
REC C
REC P̄
HEAD SEL
AMP
Q850,851
SW 9V
Q852~854 FLYING ERASE OSC
FE ON
SW 25
PB RF
SP REC CUR
LP REC CUR
CN803
CN804
HEAD SEL AMS SP/LP SW 25 REC/PB REC P̄ FE ON
SERVO SYSTEM CONTROL (MA-62)
CHECK PIN

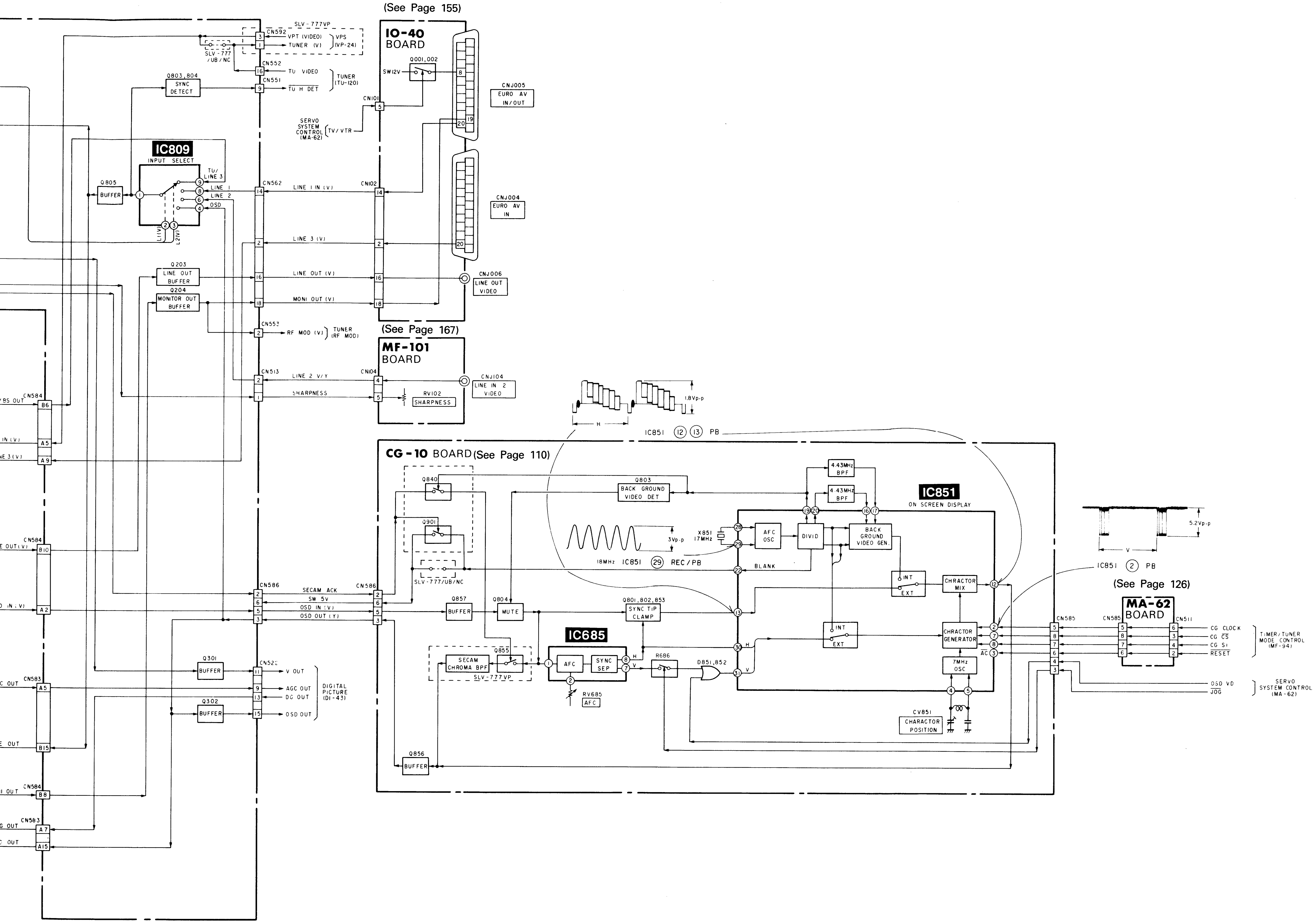

(See Page 106)
VI-97 BOARD
CN303
CN301
IC001
MUTE
REC
PB
SHARPNESS
VIDEO (2) (MA-62)
V OUT
V IN
QVD
EDIT
V PB
C SYNC
SERVO SYSTEM CONTROL (MA-62)
RF SWP
SECAM ACK
SKEW ON
LP/SP
HEAD/SEL
V DOC
PB RF C
CN302
CN702
CN703
VIDEO OUT
VIDEO IN
VIDEO
V DOP
SHARPNESS CONT
NOISE CANCEL
Y/C MIX
PB
EE
Q717,719 BUFFER AMP
AMP
MUTE
VIDEO AMP
LOGIC
IC862
SKEW CORRECT
0H
0.5H
IC861
0.5H CCD
CLK DRIVER
PB 5V
Q703
PB 5V SW
SW 5V
Q880
BUFFER
LPF
RV861
0.5H CCD LEVEL
Q881,882
AMP
IC863
SYNC SEP.
SYNC SEP
V SYNC SEP
Q883
BUFFER
V PB
EDIT
1.1Vp-p
0.85V
0.85V
0.3Vp-p
IC701 (43) PB
RV701
AGC
4.8Vp-p
IC701 (2) REC/PB
2Vp-p
IC701 (48) REC/PB
Q715
Q716
SKEW ON
LP/SP
0.22Vp-p
IC801 (30) REC
0.7Vp-p
(2) REC
SECAM ACK
COMP SYNC
SLV-777VP
(See Page 106)
SD-4 BOARD
CN851
CN852
CN1
CN2
ACK
COMP SYNC
DET CHROMA
def
COMP
Q850,851
DELAY
IC850
SECAM DET
Q807,808
SECAM
PAL
Q805
BUFFER
DL801
2H COMB FILTER
FL801
4.43MHz BPF
2H COMB DRIVE
REC
PB
0.5Vp-p
IC801 (2) PB
(21) 0.4Vp-p
(25) 1.3Vp-p
IC801 (21) (25) PB
PB KILLER AMP
COMP SYNC
IC860
PAL CHROMA SKEW CORRECT
BUFFER AMP
BM
LPF
LOGIC
X2
7.8MHz TUNING
0.5H SKEW DET
SYNC SEP
RV860
PAL JOG AFC
SW 5V
IC864
CONTROL LOGIC
AFC/APC TIME CONSTANT
Q804
REC/PB SWITCH
PB 5V (Q703)
Q806
JOG SWITCH
R829,831
VDOP (IC701 (27))
PB APC DET
ID DET
COLOR KILLER DET
321fH VCO
COUNTER
REC AFC DET
PB DISCRI
4.43MHz VXO
REC APC DET
3fsc GEN
Q860
BUFFER
X801 4.43MHz
3fsc

3-4. VIDEO (2) BLOCK DIAGRAM


(See Page 126)
MA-62 BOARD
TIMER TUNER MODE CONTROL (MF-94)
L 1 (V)
L 2 (V)
CN512
16
17
CN582
V/Y IN
4
VIDEO (1) (VI-97)
Y OUT
6
SHARPNESS
3
SECAM ACK
2
A13
CN583
Y OUT
SLV-777VP
CN592
3
1
VPT (VIDEO)
TUNER (V)
VPS (VP-24)
SLV-777 /UB/NC
CN552
16
TU VIDEO
CN551
9
TU H DET
TUNER (TU-120)
Q803,804
SYNC DETECT
IC809
INPUT SELECT
Q805
BUFFER
TU/ LINE 3
LINE 1
LINE 2
OSD
L1(V)
L2(V)
Q203
LINE OUT BUFFER
Q204
MONITOR OUT BUFFER
CN562
14
LINE 1 IN (V)
2
LINE 3 (V)
16
LINE OUT (V)
18
MONI OUT (V)
CN553
RF MOD (V)
TUNER (RF MOD)
CN513
LINE 2 V/Y
SHARPNESS
(See Page 155)
IO-40 BOARD
Q001,002
SW12V
CN101
5
SERVO SYSTEM CONTROL (MA-62)
TV/VTR
CN102
CNJ005
EURO AV IN/OUT
CNJ004
EURO AV IN
CNJ006
LINE OUT VIDEO
(See Page 167)
MF-101 BOARD
CN104
RV102
SHARPNESS
CNJ104
LINE IN 2 VIDEO
1.8Vp-p
H
IC851 ⑫ ⑬ PB
CN202
IC206
TUNER
LINE 3
CN201
TU/BS OUT
CN584
B6
TU IN (V)
A5
LINE 3 (V)
A9
IC202
SHTL EDIT
P IN P PC
LINE OUT (V)
B10
OSD IN (V)
A2
Q224
BUFFER
AGC OUT
CN583
IC208
AGC
RV201
AGC
EE OUT
B15
MONI OUT
B8
IC201
DG OUT
A7
OSC OUT
A15
SERVO SYSTEM CONTROL (MA-62)
P IN P PC
P IN P ON
SHTL EDIT
LINE 3
B1
B2
B3
B6
PI-20 BOARD
09
(See Page 110)
CN586
SECAM ACK
SW 5V
OSD IN (V)
OSD OUT (Y)
Q301
BUFFER
Q302
BUFFER
CN522
V OUT
AGC OUT
DG OUT
OSD OUT
DIGITAL PICTURE (DI-43)
CG-10 BOARD (See Page 110)
Q840
Q901
SLV-777/UB/NC
Q803
BACK GROUND VIDEO DET
4.43MHz BPF
4.43MHz BPF
ON
3Vp-p
18MHz IC851 ㉙ REC/PB
X851 17MHz
AFC OSC
DIVID
BACK GROUND VIDEO GEN.
BLANK
INT
EXT
Q857
BUFFER
Q804
MUTE
Q801,802,853
SYNC TIP CLAMP
IC685
AFC
SYNC SEP
H
V
RV685
AFC
Q855
SECAM CHROMA BPF
SLV-777VP
R686
D851,852
Q856
BUFFER

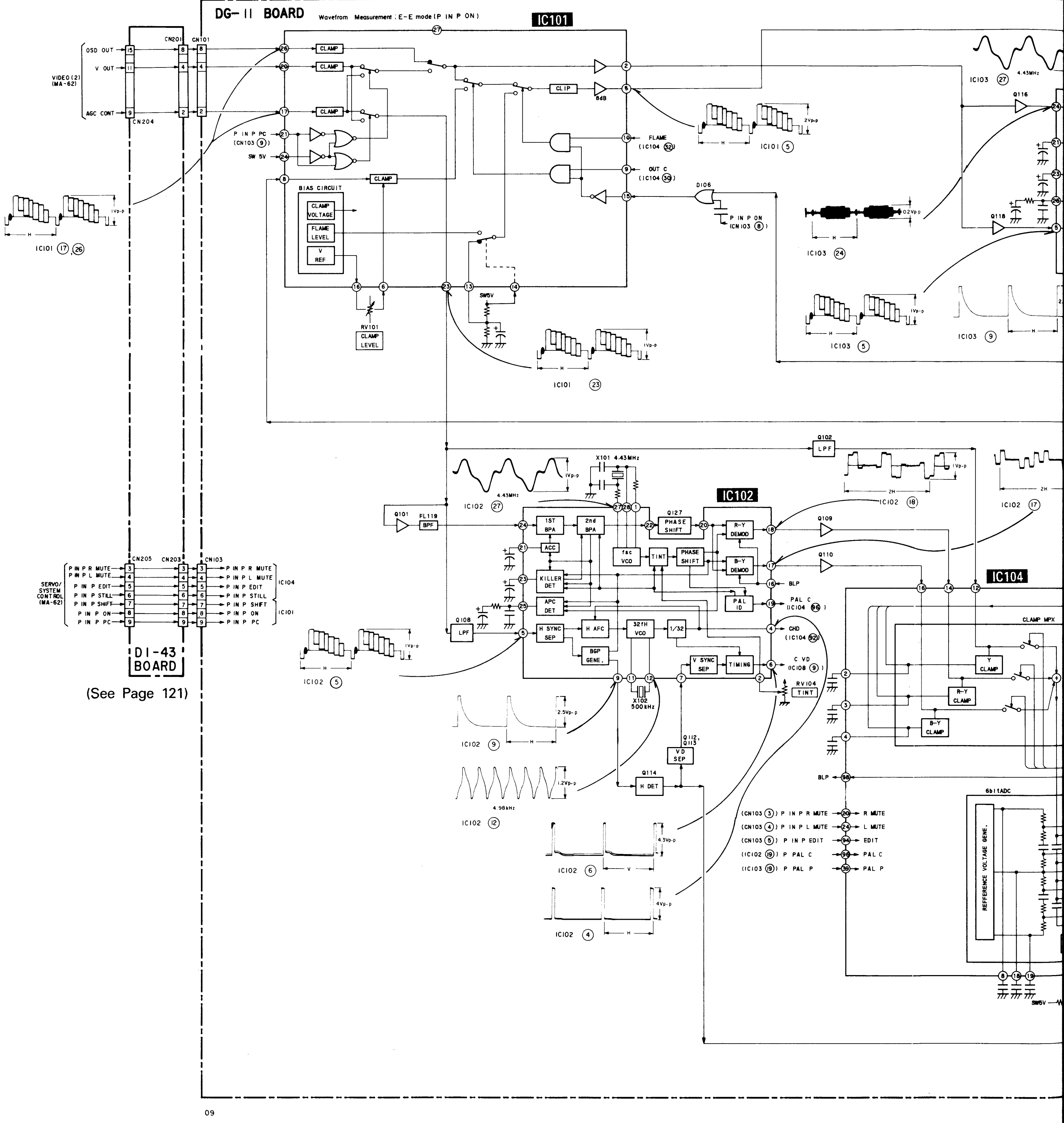
3-4. VIDEO (2) BLOCK DIAGRAM


(See Page 126)
MA-62 BOARD
TIMER TUNER MODE CONTROL (MF-94)
L 1 (V)
L 2 (V)
CN512
CN582
V/Y IN
VIDEO (1) (VI-97)
Y OUT
SHARPNESS
SECAM ACK
A13
CN583
Y OUT
CN202
SLV-777VP
CN592
VPT (VIDEO)
TUNER (V)
VPS (VP-24)
SLV-777 /UB/NC
CN552
TU VIDEO
CN551
TU H DET
TUNER (TU-120)
Q803,804
SYNC DETECT
IC809
INPUT SELECT
TU/ LINE 3
LINE 1
LINE 2
OSD
L1(V)
L2(V)
Q805
BUFFER
CN562
LINE 1 IN (V)
LINE 3 (V)
Q203
LINE OUT BUFFER
LINE OUT (V)
Q204
MONITOR OUT BUFFER
MONI OUT (V)
CN553
RF MOD (V)
TUNER (RF MOD)
CN513
LINE 2 V/Y
SHARPNESS
(See Page 155)
IO-40 BOARD
Q001,002
SW12V
CN101
SERVO SYSTEM CONTROL (MA-62)
TV/VTR
CN102
CNJ005
EURO AV IN/OUT
CNJ004
EURO AV IN
CNJ006
LINE OUT VIDEO
(See Page 167)
MF-101 BOARD
CN104
RV102
SHARPNESS
CNJ104
LINE IN 2 VIDEO
IC206
TUNER
LINE 3
CN201
TU/BS OUT
CN584
TU IN (V)
LINE 3 (V)
IC202
SHTL EDIT
P IN P PC
LINE OUT (V)
OSD IN (V)
Q224
BUFFER
AGC OUT
IC208
AGC
EE OUT
RV201
AGC
MONI OUT
IC201
DG OUT
OSD OUT
PI-20 BOARD
(See Page 110)
SERVO SYSTEM CONTROL (MA-62)
P IN P PC
P IN P ON
SHTL EDIT
LINE 3
09
CN586
SECAM ACK
SW 5V
OSD IN (V)
OSD OUT (Y)
Q301
BUFFER
CN522
V OUT
AGC OUT
DG OUT
OSD OUT
Q302
BUFFER
DIGITAL PICTURE (DI-43)
1.8Vp-p
H
IC851 ⑫ ⑬ PB
CG-10 BOARD (See Page 110)
Q840
Q901
SLV-777/UB/NC
Q803
BACK GROUND VIDEO DET
4.43MHz BPF
4.43MHz BPF
3Vp-p
X851 17MHz
18MHz IC851 ㉙ REC/PB
AFC OSC
DIVID
BACK GROUND VIDEO GEN.
BLANK
ON
INT
EXT
Q857
BUFFER
Q804
MUTE
Q801,802,853
SYNC TIP CLAMP
IC685
AFC
SYNC SEP
H
V
RV685
AFC
R686
D851,852
Q855
SECAM CHROMA BPF
SLV-777VP
Q856
BUFFER
CV
CHAR
POS


(See Page 155)
IO-40 BOARD
(See Page 167)
MF-101 BOARD
CG-10 BOARD (See Page 110)
(See Page 126)
MA-62 BOARD
IC809
INPUT SELECT
IC851
ON SCREEN DISPLAY
IC685
SLV-777VP
CN592
VPT (VIDEO)
TUNER (V)
VPS (VP-24)
SLV-777/UB/NC
CN552
TU VIDEO
CN551
TU H DET
TUNER (TU-120)
Q803,804
SYNC DETECT
Q001,002
SW12V
CN101
SERVO SYSTEM CONTROL (MA-62)
TV/VTR
CNJ005
EURO AV IN/OUT
CNJ004
EURO AV IN
Q805
BUFFER
TU/LINE 3
LINE 1
LINE 2
OSD
L1(V)
L2(V)
CN562
LINE 1 IN (V)
CN102
LINE 3 (V)
Q203
LINE OUT BUFFER
Q204
MONITOR OUT BUFFER
LINE OUT (V)
MONI OUT (V)
CNJ006
LINE OUT VIDEO
CN553
RF MOD (V)
TUNER (RF MOD)
CN513
LINE 2 V/Y
SHARPNESS
CN104
RV102
SHARPNESS
CNJ104
LINE IN 2 VIDEO
CN584
YBS OUT
IN (V)
NE 3 (V)
B6
A5
A9
E OUT (V)
B10
D IN (V)
A2
CN583
C OUT
A5
E OUT
B15
I OUT
B8
G OUT
A7
C OUT
A15
1.8Vp-p
H
IC851 ⑫ ⑬ PB
Q840
Q901
SLV-777/UB/NC
Q803
BACK GROUND VIDEO DET
4.43MHz BPF
4.43MHz BPF
X851 17MHz
AFC OSC
DIVID
BACK GROUND VIDEO GEN.
3Vp-p
18MHz IC851 ㉙ REC/PB
BLANK
INT
EXT
CHRACTOR MIX
5.2Vp-p
V
IC851 ② PB
CN586
SECAM ACK
SW 5V
OSD IN (V)
OSD OUT (Y)
Q857
BUFFER
Q804
MUTE
Q801,802,853
SYNC TIP CLAMP
Q855
SECAM CHROMA BPF
SLV-777VP
AFC
SYNC SEP
RV685
AFC
R686
D851,852
H
V
INT
EXT
CHRACTOR GENERATOR
7MHz OSC
CV851
CHARACTOR POSITION
Q856
BUFFER
Q301
BUFFER
Q302
BUFFER
CN522
V OUT
AGC OUT
DC OUT
OSD OUT
DIGITAL PICTURE (DI-43)
CN585
CN585
CN511
CG CLOCK
CG CS
CG SI
RESET
TIMER/TUNER MODE CONTROL (MF-94)
OSD VD
JOG
SERVO SYSTEM CONTROL (MA-62)

3-5. DIGITAL PICTURE BLOCK DIAGRAM

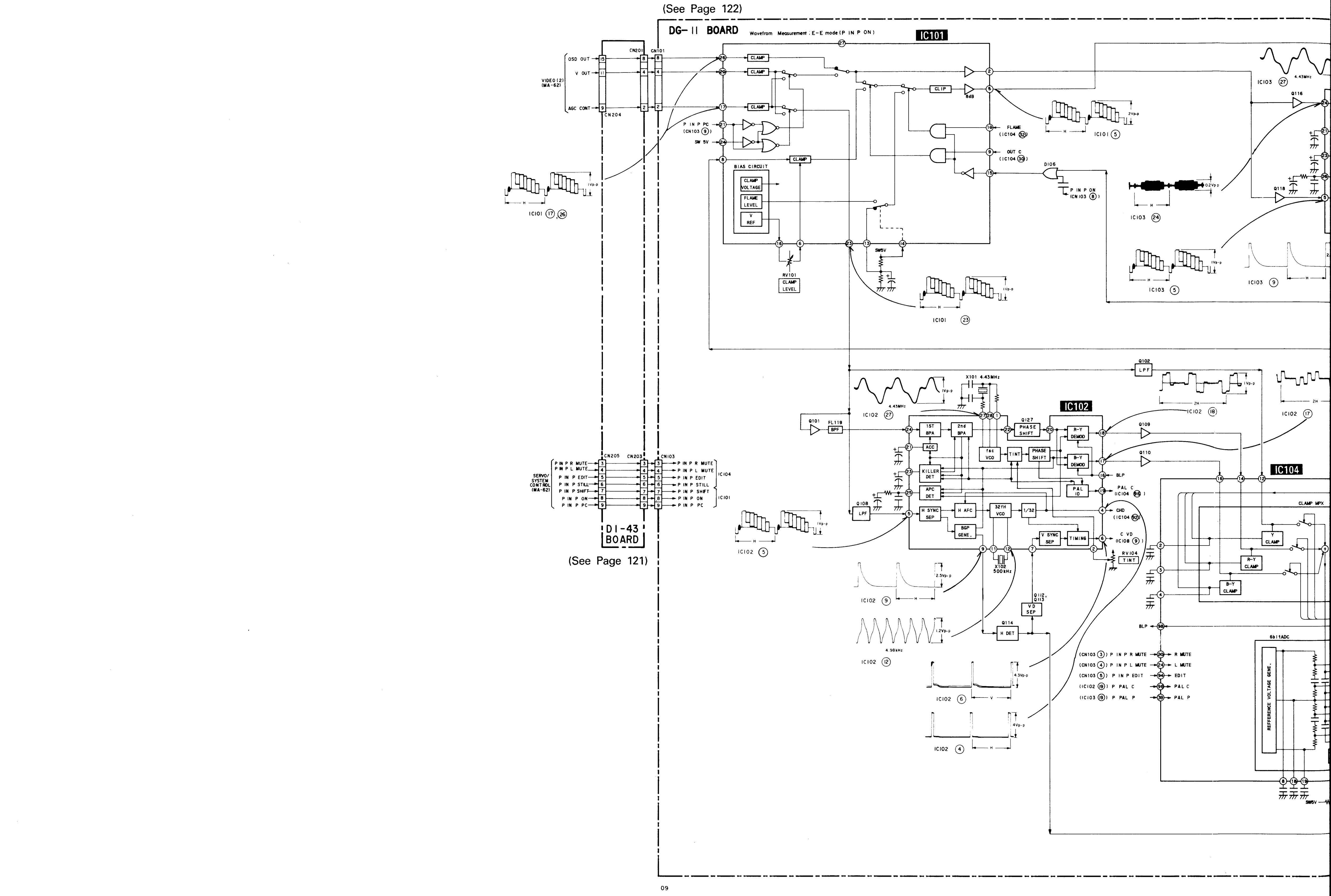
(See Page 122)


DG-11 BOARD
Waveform Measurement : E-E mode (P IN P ON)
IC101
IC102
IC104
CLAMP
CLIP
BIAS CIRCUIT
CLAMP VOLTAGE
FLAME LEVEL
V REF
RV101 CLAMP LEVEL
FLAME (IC104 52)
OUT C (IC104 50)
D106
P IN P ON (CN103 8)
OSD OUT
V OUT
AGC CONT
VIDEO (2) (MA-62)
CN201
CN101
CN204
CN205
CN203
CN103
P IN P PC (CN103 9)
SW 5V
SERVO/SYSTEM CONTROL (MA-62)
P IN P R MUTE
P IN P L MUTE
P IN P EDIT
P IN P STILL
P IN P SHIFT
P IN P ON
P IN P PC
DI-43 BOARD
(See Page 121)
X101 4.43MHz
Q101
FL119 BPF
Q108 LPF
1ST BPA
2nd BPA
ACC
KILLER DET
APC DET
H SYNC SEP
H AFC
BGP GENE.
fsc VCO
TINT
PHASE SHIFT
Q127
R-Y DEMOD
B-Y DEMOD
PAL ID
32fH VCO
1/32
V SYNC SEP
TIMING
X102 500kHz
Q112, Q113 VD SEP
Q114 H DET
RV104 TINT
Q102 LPF
Q109
Q110
Q116
Q118
BLP
PAL C (IC104 66)
CHD (IC104 62)
C VD (IC108 9)
CLAMP MPX
Y CLAMP
R-Y CLAMP
B-Y CLAMP
6bit ADC
REFFERENCE VOLTAGE GENE.
R MUTE
L MUTE
EDIT
PAL C
PAL P
IC101 17 26
IC101 23
IC101 5
IC103 27
IC103 24
IC103 5
IC103 9
IC102 27
IC102 18
IC102 17
IC102 5
IC102 9
IC102 12
IC102 6
IC102 4
4.43MHz
1Vp-p
2Vp-p
0.2Vp-p
2.5Vp-p
1.2Vp-p
4.98kHz
4.3Vp-p
4Vp-p
09

62

62

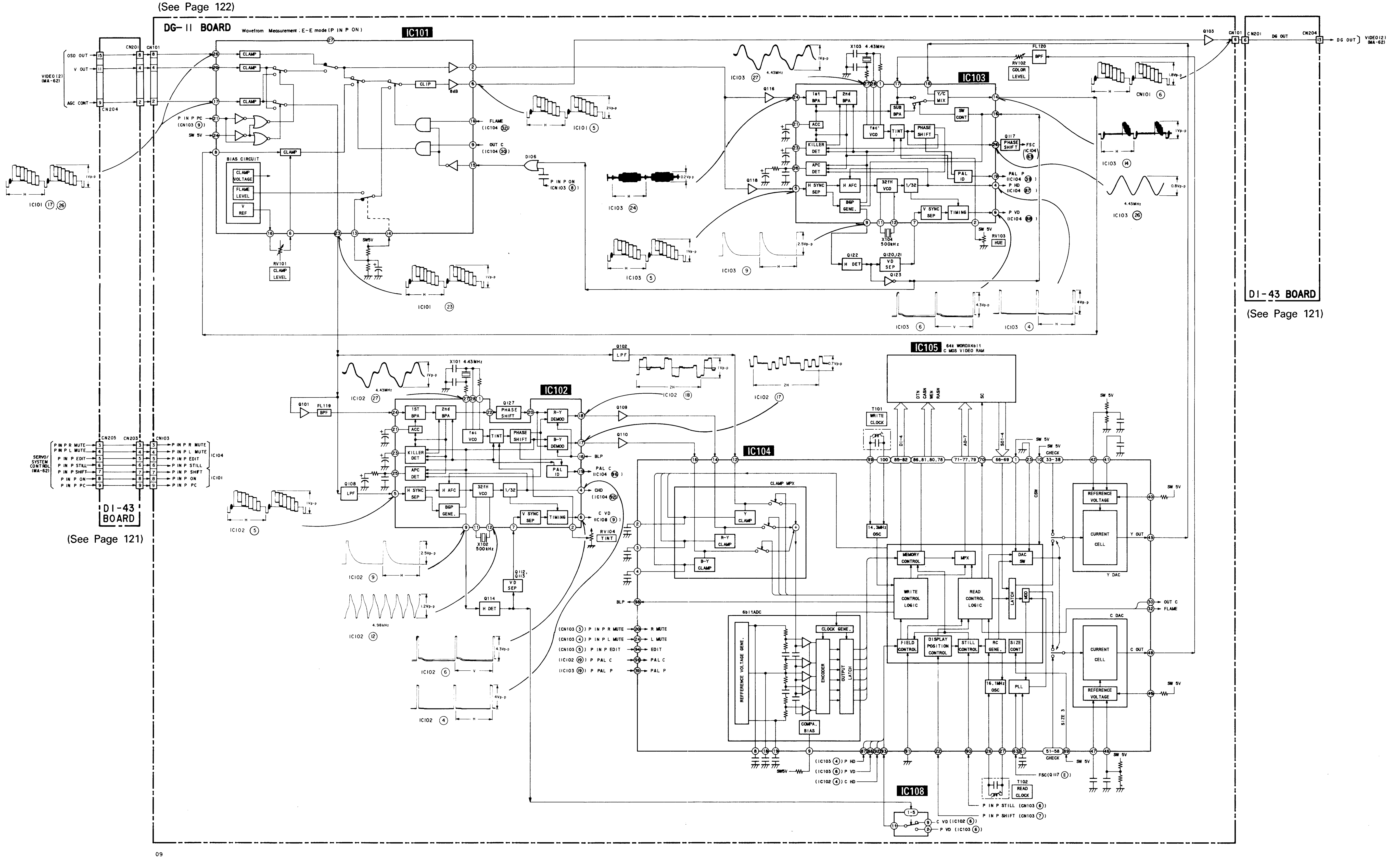
3-5. DIGITAL PICTURE BLOCK DIAGRAM


(See Page 122)
DG-11 BOARD
Wavefrom Measurement : E-E mode (P IN P ON)
IC101
IC102
IC104
CN201
CN101
CN204
CN205
CN203
CN103
VIDEO (2) (MA-62)
OSD OUT
V OUT
AGC CONT
CLAMP
CLIP
BIAS CIRCUIT
CLAMP VOLTAGE
FLAME LEVEL
V REF
RV101 CLAMP LEVEL
FLAME (IC104 52)
OUT C (IC104 30)
D106
P IN P ON (CN103 8)
P IN P PC (CN103 9)
SW 5V
IC101 17 26
IC101 23
IC101 5
IC103 27
IC103 24
IC103 5
IC103 9
Q116
Q118
4.43MHz
Q102 LPF
X101 4.43MHz
Q101
FL119 BPF
1ST BPA
2nd BPA
ACC
KILLER DET
APC DET
H SYNC SEP
H AFC
BGP GENE.
fsc VCO
TINT
PHASE SHIFT
Q127 PHASE SHIFT
R-Y DEMOD
B-Y DEMOD
PAL ID
32fH VCO
1/32
V SYNC SEP
TIMING
X102 500kHz
Q112, Q113 VD SEP
Q114 H DET
Q108 LPF
Q109
Q110
BLP
PAL C (IC104 66)
CHD (IC104 62)
C VD (IC108 9)
RV104 TINT
IC102 27
IC102 18
IC102 17
IC102 5
IC102 9
IC102 12
IC102 6
IC102 4
4.98kHz
SERVO/SYSTEM CONTROL (MA-62)
P IN P R MUTE
P IN P L MUTE
P IN P EDIT
P IN P STILL
P IN P SHIFT
P IN P ON
P IN P PC
IC104
IC101
DI-43 BOARD
(See Page 121)
CLAMP MPX
Y CLAMP
R-Y CLAMP
B-Y CLAMP
6bit ADC
REFFERENCE VOLTAGE GENE.
(CN103 3) P IN P R MUTE → R MUTE
(CN103 4) P IN P L MUTE → L MUTE
(CN103 5) P IN P EDIT → EDIT
(IC102 19) P PAL C → PAL C
(IC103 19) P PAL P → PAL P
SW5V
09

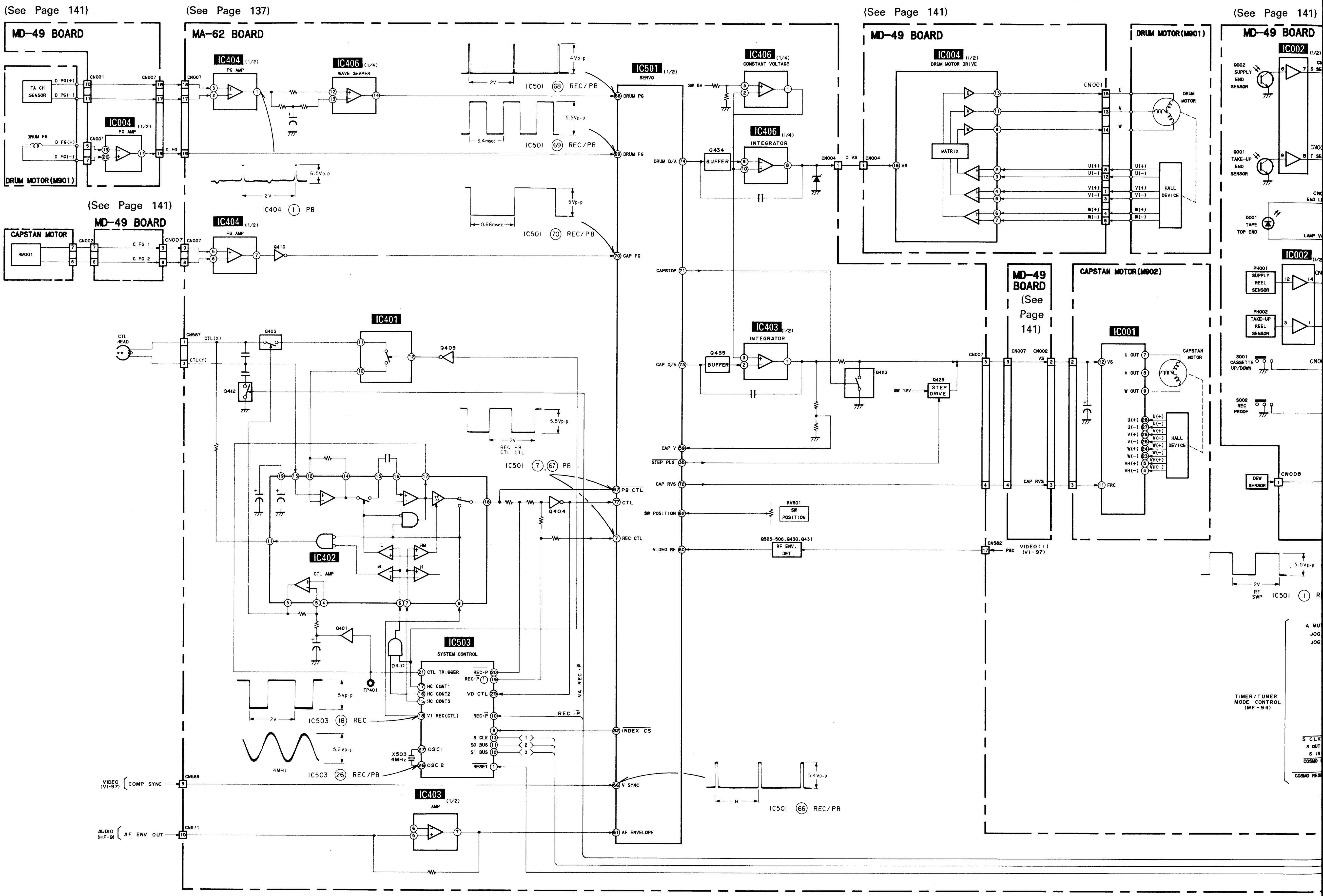
62

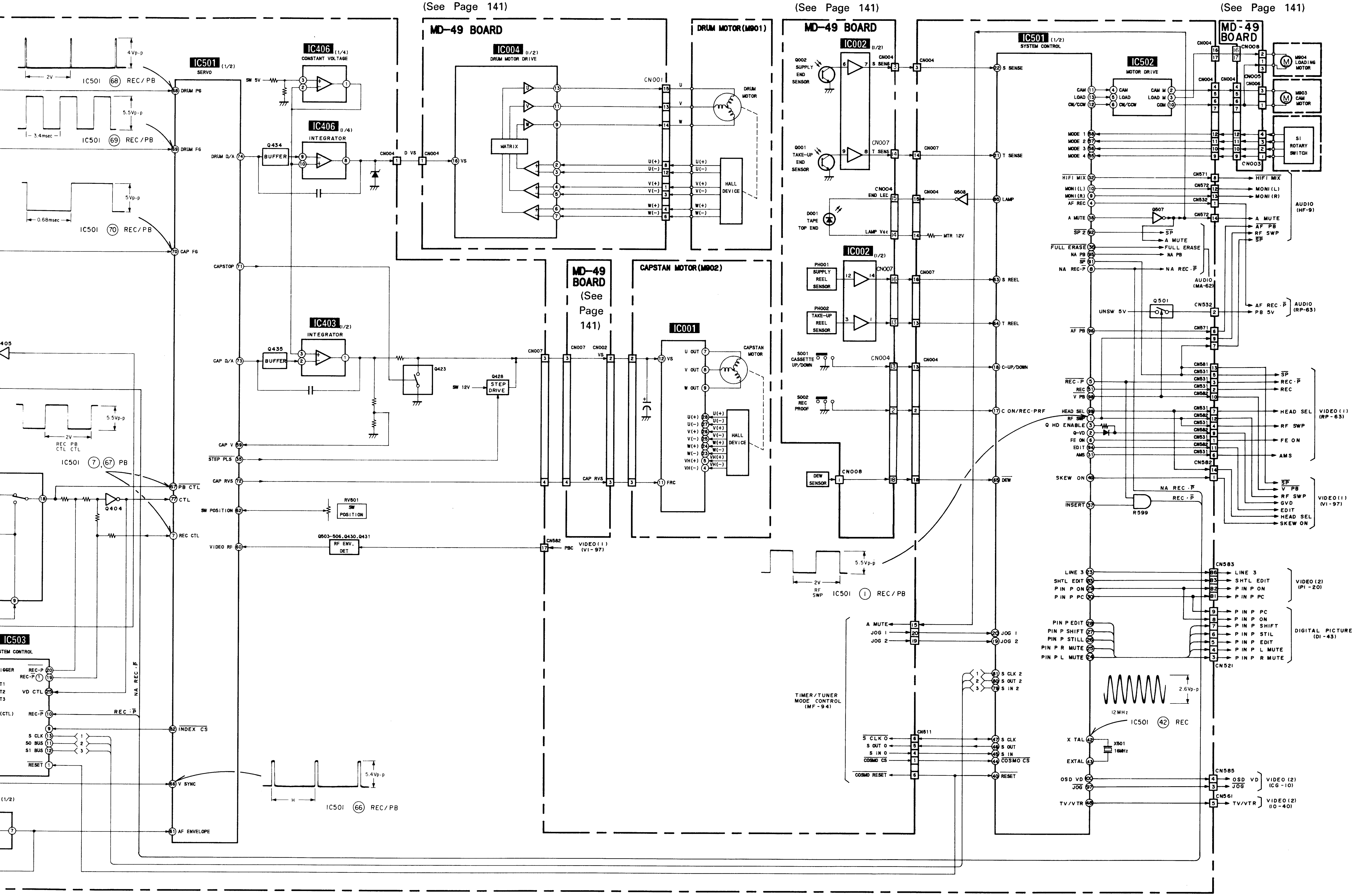
62

3-5. DIGITAL PICTURE BLOCK DIAGRAM


(See Page 122)
DG-11 BOARD
Waveform Measurement : E-E mode (P IN P ON)
IC101
IC102
IC103
IC104
IC105
64k WORDx4bit C MOS VIDEO RAM
IC108
CLAMP
CLIP
BIAS CIRCUIT
CLAMP VOLTAGE
FLAME LEVEL
V REF
RV101 CLAMP LEVEL
FLAME (IC104 52)
OUT C (IC104 30)
D106
P IN P ON (CN103 8)
P IN P PC (CN103 9)
SW 5V
OSD OUT
V OUT
AGC CONT
VIDEO(2) (MA-62)
CN201
CN101
CN204
X103 4.43MHz
1st BPA
2nd BPA
SUB BPA
Y/C MIX
SW CONT
ACC
KILLER DET
APC DET
fsc VCO
TINT
PHASE SHIFT
H SYNC SEP
H AFC
32fH VCO
1/32
BGP GENE.
PAL ID
V SYNC SEP
TIMING
FL120 BPF
RV102 COLOR LEVEL
Q103
Q116
Q117
Q118
Q120,121 VD SEP
Q122 H DET
Q123
X104 500kHz
RV103 HUE
FSC (IC104 63)
PAL P (IC104 59)
P HD (IC104 87)
P VD (IC104 88)
DG OUT
VIDEO(2) (MA-62)
DI-43 BOARD
(See Page 121)
X101 4.43MHz
Q101
FL119 BPF
Q102 LPF
Q108 LPF
Q109
Q110
Q112, Q113
Q114 H DET
Q127
R-Y DEMOD
B-Y DEMOD
X102 500kHz
BLP
PAL C (IC104 99)
CHD (IC104 92)
C VD (IC108 9)
RV104 TINT
CN205
CN203
CN103
SERVO/SYSTEM CONTROL (MA-62)
P IN P R MUTE
P IN P L MUTE
P IN P EDIT
P IN P STILL
P IN P SHIFT
P IN P ON
P IN P PC
DI-43 BOARD
(See Page 121)
CLAMP MPX
Y CLAMP
R-Y CLAMP
B-Y CLAMP
6bit ADC
REFERENCE VOLTAGE GENE.
ENCODER
OUTPUT LATCH
CLOCK GENE.
COMPA. BIAS
T101 WRITE CLOCK
14.3MHz OSC
MEMORY CONTROL
MPX
DAC SW
WRITE CONTROL LOGIC
READ CONTROL LOGIC
LATCH
MOD
FIELD CONTROL
DISPLAY POSITION CONTROL
STILL CONTROL
RC GENE.
SIZE CONT
16.1MHz OSC
PLL
T102 READ CLOCK
REFERENCE VOLTAGE
CURRENT CELL
Y DAC
Y OUT
C DAC
C OUT
OUT C
FLAME
CHECK
(CN103 3) P IN P R MUTE → R MUTE
(CN103 4) P IN P L MUTE → L MUTE
(CN103 5) P IN P EDIT → EDIT
(IC102 19) P PAL C → PAL C
(IC103 19) P PAL P → PAL P
(IC103 4) P HD
(IC103 6) P VD
(IC102 4) C HD
FSC (Q117 E)
P IN P STILL (CN103 6)
P IN P SHIFT (CN103 7)
C VD (IC102 6)
P VD (IC103 6)
IC101 17 26
IC101 5
IC101 23
IC103 27
IC103 24
IC103 5
IC103 9
IC103 6
IC103 4
IC103 14
IC103 26
CN101 6
IC102 27
IC102 18
IC102 17
IC102 5
IC102 9
IC102 12
IC102 6
IC102 4
09

3-6. SERVO, SYSTEM CONTROL BLOCK DIAGRAM


(See Page 141)
MD-49 BOARD
(See Page 137)
MA-62 BOARD
(See Page 141)
MD-49 BOARD
DRUM MOTOR(M901)
(See Page 141)
MD-49 BOARD
TA CH SENSOR
D PG(+)
D PG(-)
DRUM FG
D FG(+)
D FG(-)
IC004 (1/2) FG AMP
CN001
CN007
DRUM MOTOR(M901)
(See Page 141)
MD-49 BOARD
CAPSTAN MOTOR
CN002
C FG 1
C FG 2
IC404 (1/2) PG AMP
IC406 (1/4) WAVE SHAPER
IC404 (1/2) FG AMP
Q410
IC404 ① PB
IC501 68 REC/PB
IC501 69 REC/PB
IC501 70 REC/PB
4Vp-p
2V
5.5Vp-p
3.4msec
6.5Vp-p
5Vp-p
0.68msec
IC501 (1/2) SERVO
DRUM PG
DRUM FG
CAP FG
DRUM D/A
CAPSTOP
CAP D/A
CAP V
STEP PLS
CAP RVS
SW POSITION
VIDEO RF
PB CTL
CTL
REC CTL
INDEX CS
V SYNC
AF ENVELOPE
IC406 (1/4) CONSTANT VOLTAGE
SW 5V
IC406 (1/4) INTEGRATOR
Q434 BUFFER
IC403 (1/2) INTEGRATOR
Q435 BUFFER
Q423
Q428 STEP DRIVE
SW 12V
RV501 SW POSITION
Q503-506,Q430,Q431 RF ENV. DET
CN004 D VS
CN007
CN582 PBC
VIDEO(I) (VI-97)
IC004 (1/2) DRUM MOTOR DRIVE
MATRIX
VS
U V W
U(+) U(-) V(+) V(-) W(+) W(-)
HALL DEVICE
DRUM MOTOR
MD-49 BOARD (See Page 141)
CN007 CN002 VS
CAP RVS
CAPSTAN MOTOR(M902)
IC001
U OUT V OUT W OUT
FRC
CAPSTAN MOTOR
VH(+) VH(-)
(See Page 141)
MD-49 BOARD
IC002 (1/2)
Q002 SUPPLY END SENSOR
Q001 TAKE-UP END SENSOR
D001 TAPE TOP END
IC002 (1/2)
PH001 SUPPLY REEL SENSOR
PH002 TAKE-UP REEL SENSOR
S001 CASSETTE UP/DOWN
S002 REC PROOF
DEW SENSOR
CN008
5.5Vp-p
2V
RF SWP
IC501 ①
TIMER/TUNER MODE CONTROL (MF-94)
CTL HEAD
CN587
CTL(X)
CTL(Y)
Q403
Q412
IC401
Q405
5.5Vp-p
2V
REC PB
CTL CTL
IC501 ⑦, 67 PB
Q404
IC402
CTL AMP
L HM ML H
Q401
TP401
D410
IC503 SYSTEM CONTROL
CTL TRIGGER
HC CONT1
HC CONT2
HC CONT3
V1 REC(CTL)
OSC1
OSC2
X503 4MHz
REC-P
VD CTL
S CLK
SO BUS
SI BUS
RESET
NA REC P
REC P
5Vp-p
2V
IC503 18 REC
5.2Vp-p
4MHz
IC503 26 REC/PB
5.4Vp-p
H
IC501 66 REC/PB
VIDEO (VI-97) COMP SYNC
CN589
AUDIO (HF-9) AF ENV OUT
CN571
IC403 (1/2) AMP


(See Page 141)
MD-49 BOARD
IC004 (1/2) DRUM MOTOR DRIVE
MATRIX
CN001
DRUM MOTOR (M901)
DRUM MOTOR
HALL DEVICE
IC501 (1/2) SERVO
DRUM PG
DRUM FG
CAP FG
CAPSTOP
DRUM D/A
CAP D/A
CAP V
STEP PLS
CAP RVS
SW POSITION
VIDEO RF
PB CTL
CTL
REC CTL
INDEX CS
V SYNC
AF ENVELOPE
IC406 (1/4) CONSTANT VOLTAGE
IC406 (1/4) INTEGRATOR
IC403 (1/2) INTEGRATOR
Q434 BUFFER
Q435 BUFFER
Q423
Q428 STEP DRIVE
Q404
RV801 SW POSITION
Q503-506,Q430,Q431 RF ENV. DET
IC501 (68) REC/PB
IC501 (69) REC/PB
IC501 (70) REC/PB
IC501 (7),(67) PB
IC501 (66) REC/PB
IC501 (1) REC/PB
IC501 (42) REC
4Vp-p
5.5Vp-p
5Vp-p
5.4Vp-p
2.6Vp-p
2V
3.4msec
0.68msec
CAPSTAN MOTOR (M902)
IC001
CAPSTAN MOTOR
FRC
VIDEO (1) (VI-97)
IC503 SYSTEM CONTROL
IC002 (1/2)
Q002 SUPPLY END SENSOR
Q001 TAKE-UP END SENSOR
D001 TAPE TOP END
PH001 SUPPLY REEL SENSOR
PH002 TAKE-UP REEL SENSOR
S001 CASSETTE UP/DOWN
S002 REC PROOF
DEW SENSOR
IC501 (1/2) SYSTEM CONTROL
S SENSE
T SENSE
LAMP
S REEL
T REEL
C-UP/DOWN
C ON/REC-PRF
DEW
IC502 MOTOR DRIVE
M904 LOADING MOTOR
M903 CAM MOTOR
S1 ROTARY SWITCH
MODE 1
MODE 2
MODE 3
MODE 4
HIFI MIX
MONI (L)
MONI (R)
AF REC
A MUTE
SP 2
FULL ERASE
NA PB
SP
NA REC·P
AUDIO (HF-9)
AUDIO (MA-62)
AUDIO (RP-63)
UNSW 5V
Q501
Q507
Q508
AF PB
REC·P
REC
V PB
HEAD SEL
RF SWP
Q HD ENABLE
Q-VD
FE ON
EDIT
AMS
SKEW ON
INSERT
R599
VIDEO (1) (RP-63)
VIDEO (1) (VI-97)
LINE 3
SHTL EDIT
PIN P ON
PIN P PC
VIDEO (2) (PI-20)
PIN P EDIT
PIN P SHIFT
PIN P STILL
PIN P R MUTE
PIN P L MUTE
DIGITAL PICTURE (DI-43)
JOG 1
JOG 2
S CLK 2
S OUT 2
S IN 2
TIMER/TUNER MODE CONTROL (MF-94)
S CLK
S OUT
S IN
COSMO CS
COSMO RESET
RESET
X TAL
EXTAL
X501 16MHz
12MHz
OSD VD
JOG
TV/VTR
VIDEO (2) (CG-10)
VIDEO (2) (IO-40)

3-7. SYSTEM CONTROL — VIDEO BLOCK INTERFACE

Signal	I/O	Pin No.	STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
$\overline{\text{V•PB}}$	O	Pin (98) of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	H*12	H*12
HEAD SEL	O	Pin (99) of IC501 on MA-62 board	L	L	L	L	H	*1	H	L	L	H	L	H*12	L
RF SW P (SW25)	O	Pin ① of IC501 on MA-62 board	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
Q VD/V MUTE	O	Pin ② of IC501 on MA-62 board	L	L	L	*3	*4	*4	*4	*4	*4	L	L	L	L*11
FE ON	O	Pin ⑥ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	*5	L	H*12	L
EDIT	O	Pin (94) of IC501 on MA-62 board	L	L	L	*6	*6	*6	*6	*6	*6	*6	L	*6	L
AMS	O	Pin ㉛ of IC501 on MA-62 board	L	L	L	L	L	L	L	*7	*7	L	L	L	L
$\overline{\text{SP}}$	O	Pin (91) of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
$\overline{\text{SP•2}}$	O	Pin (92) of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
LP•HEAD	O	Pin (93) of IC501 on MA-62 board	*9	*9	*9	*9	L	L	L	L	L	*9	*9	*9	*9
REC•$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L
REC	O	Pin (51) of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	H	H	H
V SYNC	I	Pin (66) of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10

*1. "H": when tape stopped. "L": when tape running (for approx. 40 msec).
*2. Sync with drum revolution. 25 Hz 50% DUTY pulse.
*3. "L": normally. "H": when CTL signal is not played back.
*4. V cycle "H" pulse.
*5. "H": when REC start (SP: for approx. 10 sec, LP: for approx. 20 sec)
*6. "L": normally. "H": EDIT mode.
*7. HI-Z (2.5V) in SP mode. "L": LP mode.
*8. According to SP/LP selector. "L": SP mode, "H": LP mode.
*9. According to tape REC mode.

Signal	SP	LP
$\overline{\text{SP}}$ (Pin (91))	L	H
$\overline{\text{SP2}}$ (Pin (92))	L	L
LP HEAD (Pin (93))	L	H

*10. Composite sync signal (positive polarity).
*11. V cycle "H" pulse: when A INS.PAUSE mode.
*12. "L": when A INS or A INS.PAUSE mode.

3-8. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

Signal	I/O	Pin No.	STOP	FF	REW	TAPE LOADING
REC CTL *1	O	Pin ⑦ of IC501 on MA-62 board	*1	*1	*1	*1
CAP STOP	O	Pin (71) of IC501 on MA-62 board	H	L	L	L
$\overline{\text{STEP PLS}}$	O	Pin ㉟ of IC501 on MA-62 board	H	H	H	H
CAP V *3	I	Pin (59) of IC501 on MA-62 board				
SW POSITION *4	I	Pin (62) of IC501 on MA-62 board				
PB CTL	I	Pin (67) of IC501 on MA-62 board	H	*6	*6	
VD CTL	I	Pin (77) of IC501 on MA-62 board	H	*6	*6	
DRUM PG	I	Pin (68) of IC501 on MA-62 board	L	*7	*7	*5
DRUM FG	I	Pin (69) of IC501 on MA-62 board	L	*8	*8	*5
CAP FG	I	Pin (70) of IC501 on MA-62 board	H/L	*6	*6	*5
INDEX $\overline{\text{CS}}$	O	Pin (82) of IC501 on MA-62 board	*10	*10	*10	*10
CAP RVS	O	Pin (72) of IC501 on MA-62 board	H/L	L	H	L
CAP DA *14	O	Pin (73) of IC501 on MA-62 board	*11	*11	*11	*11
DRUM DA *14	O	Pin (74) of IC501 on MA-62 board	*13	*13	*13	*13
REC•$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L
$\overline{\text{INSERT}}$	O	Pin ㊲ of IC501 on MA-62 board	H	H	H	H

*1. 25 Hz pulse
*2. Tape running pulse
*3. Input terminal for capstan constant voltage driving. Used fro cassette loading/unloading, etc.
*4. Input terminal for switching position adjustment.
*5. Non periodical pulse
*6. Cycle pulse proportional to tape speed.
*7. 25 Hz "H" pulse
*8. 300 Hz pulse
*9. Tape running pulse
*10. 8 msec cycle pulse
*11. Approx. 2 msec cycle "H" or "L" pulse.
*12. Approx. 1.5 msec cycle "H" or "L" pulse.
*13. Approx. 3 msec cycle "H" or "L" pulse.
*14. Tri-state output of "H", "L" and "HI-Z (2.5V)".

2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
.	L	L	H	H	H*12	H*12
I	L	L	H	L	H*12	L
2	*2	*2	*2	*2	*2	*2
4	*4	*4	L	L	L	L*11
.	L	L	*5	L	H*12	L
6	*6	*6	*6	L	*6	L
.	*7	*7	L	L	L	L
9	*9	*9	*8	*8	*9	*9
9	*9	*9	*8	*8	*9	*9
.	L	L	*9	*9	*9	*9
.	L	L	H	L	H	L
.	L	L	H	H	H	H
0	*10	*10	*10	*10	*10	*10

EC mode.

	SP	LP
	L	H
	L	L
)	L	H

nal (positive polarity).
when A INS.PAUSE mode.
r A INS.PAUSE mode.

3-8. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

Signal	I/O	Pin No.	STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
REC CTL *1	O	Pin ⑦ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
CAP STOP	O	Pin (71) of IC501 on MA-62 board	H	L	L	L	L	L	H	H	L	L	L	L	H	L	H
$\overline{\text{STEP PLS}}$	O	Pin ㉟ of IC501 on MA-62 board	H	H	H	H	H	H	H	*2	H	H	H	H	H	H	H
CAP V *3	I	Pin (59) of IC501 on MA-62 board															
SW POSITION *4	I	Pin (62) of IC501 on MA-62 board															
PB CTL	I	Pin (67) of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
VD CTL	I	Pin (77) of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
DRUM PG	I	Pin (68) of IC501 on MA-62 board	L	*7	*7	*5	*5	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
DRUM FG	I	Pin (69) of IC501 on MA-62 board	L	*8	*8	*5	*5	*8	*8	*8	*8	*8	*8	*8	*8	*8	*8
CAP FG	I	Pin (70) of IC501 on MA-62 board	H/L	*6	*6	*5	*5	*6	H/L	*9	*6	*6	*6	*6	H/L	*6	H/L
INDEX $\overline{\text{CS}}$	O	Pin (82) of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10
CAP RVS	O	Pin (72) of IC501 on MA-62 board	H/L	L	H	L	H	L	L	*2	L	L	H	L	L	L	L
CAP DA *14	O	Pin (73) of IC501 on MA-62 board	*11	*11	*11	*11	*11	*12	*11	*11	*12	*12	*12	*12	*11	*12	*11
DRUM DA *14	O	Pin (74) of IC501 on MA-62 board	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13
REC•$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	L	L	H	L	H	L
$\overline{\text{INSERT}}$	O	Pin ㊲ of IC501 on MA-62 board	H	H	H	H	H	H	H	H	H	H	H	H	H	L	H

*1. 25 Hz pulse
*2. Tape running pulse
*3. Input terminal for capstan constant voltage driving. Used fro cassette loading/unloading, etc.
*4. Input terminal for switching position adjustment.
*5. Non periodical pulse
*6. Cycle pulse proportional to tape speed.
*7. 25 Hz "H" pulse
*8. 300 Hz pulse
*9. Tape running pulse
*10. 8 msec cycle pulse
*11. Approx. 2 msec cycle "H" or "L" pulse.
*12. Approx. 1.5 msec cycle "H" or "L" pulse.
*13. Approx. 3 msec cycle "H" or "L" pulse.
*14. Tri-state output of "H", "L" and "HI-Z (2.5V)".

3-9. SYSTEM CONTROL — MECHANISM BLOCK INTERFACE

	Mode		HI-SPEED REW	EJECTED	CASSETTE LOADING	CASSETTE UNLOADING	TAPE LOADING	TAPE UNLOADING	STOP	FF	REW	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC PAUSE
Signal	I/O	Pin No.																	
CAM *1	O	Pin ⑪ of IC501 on MA-62 board	L	L	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L
LOAD	O	Pin ⑬ of IC501 on MA-62 board	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L	L	L
CW/CCW	O	Pin ⑫ of IC501 on MA-62 board			H	L	H	L											
MODE 1	I	Pin (58) of IC501 on MA-62 board	H	L	L	L	H	H	L	H	H	H	L	L	H	H	H	H	L
MODE 2	I	Pin (57) of IC501 on MA-62 board	L	H	H	H	H	H	L	L	L	L	H	H	L	L	L	L	H
MODE 3	I	Pin (56) of IC501 on MA-62 board	H	H	H	H	L	L	L	L	L	H	H	H	H	H	L	H	H
MODE 4	I	Pin (55) of IC501 on MA-62 board	H	H	H	H	H	H	L	H	H	L	L	L	L	L	L	L	L
REC PRF	I	Pin ⑰ of IC501 on MA-62 board	*2	L	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
C-UP/DOWN	I	Pin ⑱ of IC501 on MA-62 board	L	H	H→L	L→H	L	L	L	L	L	L	L	L	L	L	L	L	L
T REEL	I	Pin (64) of IC501 on MA-62 board	*3	H/L	H/L	H/L	H/L	H/L	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
S REEL	I	Pin (63) of IC501 on MA-62 board	*3	H/L	H/L	H/L	*3	*3	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
LAMP	O	Pin (85) of IC501 on MA-62 board	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4
DEW	I	Pin (65) of IC501 on MA-62 board	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5
CAP V	I	Pin (59) of IC501 on MA-62 board	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6
CAP STOP	O	Pin (71) of IC501 on MA-62 board	L	H	H	H	L	L	H	L	L	L	H	H	L	L	L	L	H
CAP RVS	O	Pin (72) of IC501 on MA-62 board	H	H			L	H	H/L	L	H	L	L	L/*9	L	L	H	L	L
CAP DA *8	O	Pin (73) of IC501 on MA-62 board																	
T SENS	I	Pin ㉑ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
S SENS	I	Pin ㉒ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	7	*7	*7

*1. "H": when mechanical mode shifted.
*2. "L": when erasure protection tab is removed, "H": when not removed.
*3. Cycle pulse proportional to reel rotation speed.
*4. Approx. 2 msec cycle "H" pulse.
*5. "H": normally.
*6. Input terminal for capstan constant voltage driving. Used for FF/REW, cassette loading/unloading, etc.
*7. "L": normally. 2 msec cycle "H" pulse: when tape top or end is detected.
*8. Tri-state output of "H", "L" and "HI-Z (2.5V)".
*9. Tape running pulse

3-10. SYSTEM CONTROL — SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE

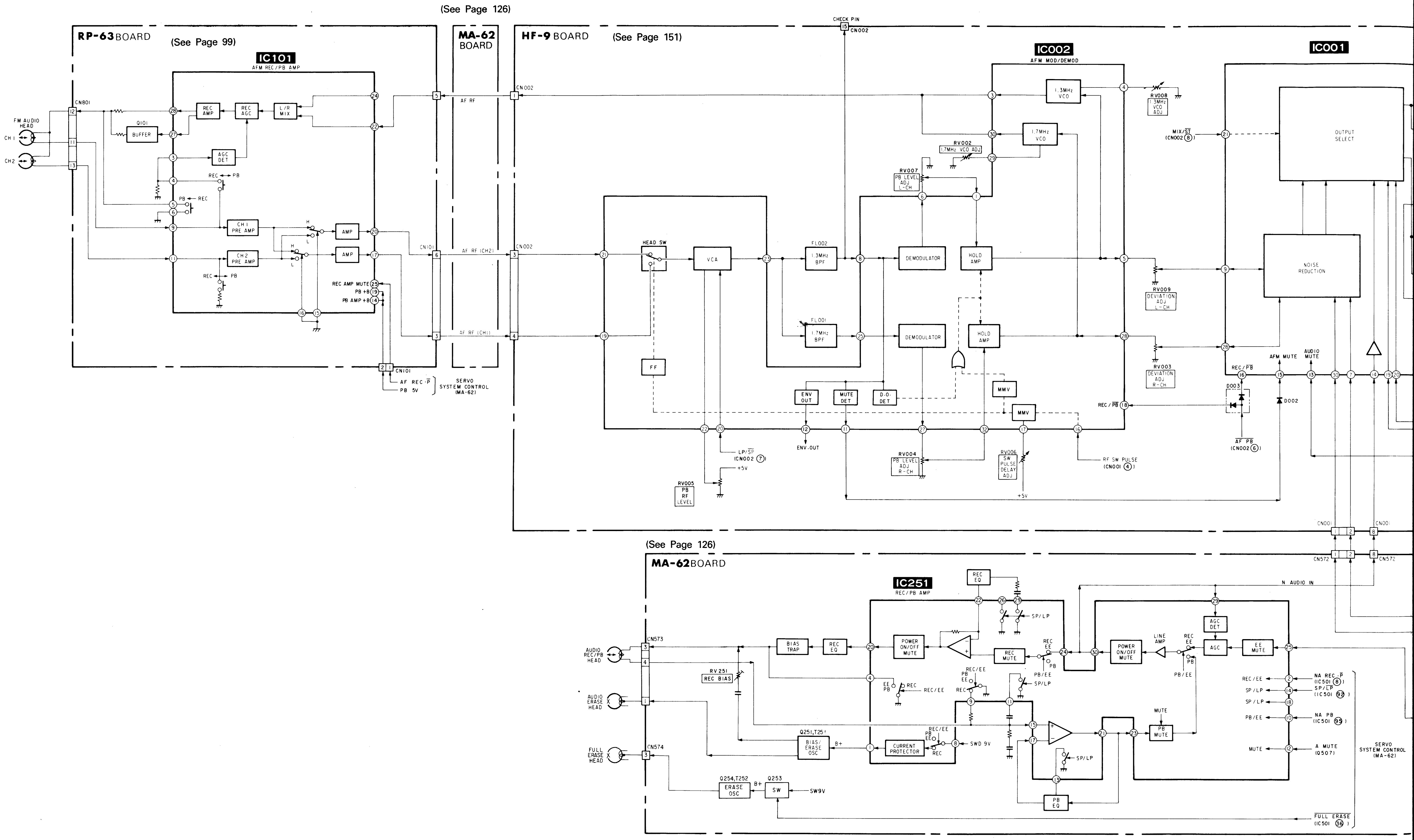
Signal	I/O	Pin No.	Input/output level
$\overline{\text{COSMO}\cdot\text{RESET}}$	I	Pin ㊵ of IC501 on MA-62 board	"H": normally. "L": when power failure detected or power failure restored.
$\overline{\text{COSMO}\cdot\text{CS}}$	I	Pin ㊹ of IC501 on MA-62 board	Chip select signal from timer micro computer. V cycle "L" pulse.
SI•BUS	I	Pin ㊺ of IC501 on MA-62 board	Serial communication data from timer micro computer. V cycle "L" pulse.
SO•BUS	O	Pin ㊻ of IC501 on MA-62 board	Serial communication data to timer micro computer. V cycle "L" pulse.
S CLK	I	Pin ㊼ of IC501 on MA-62 board	Serial communication clock with timer micro computer. V cycle "L" pulse.
S IN 2	I	Pin (79) of IC501 on MA-62 board	Serial communication data from INDEX IC. 8 msec cycle "L" pulse.
S OUT 2	O	Pin (80) of IC501 on MA-62 board	Serial communication data to INDEX IC. 8 msec cycle "L" pulse.
S CLK 2	O	Pin (81) of IC501 on MA-62 board	Serial communication clock to INDEX IC. 8 msec cycle "L" pulse.
INDEX $\overline{\text{CS}}$	O	Pin (82) of IC501 on MA-62 board	Chip select signal to INDEX IC. 8 msec cycle "L" pulse.

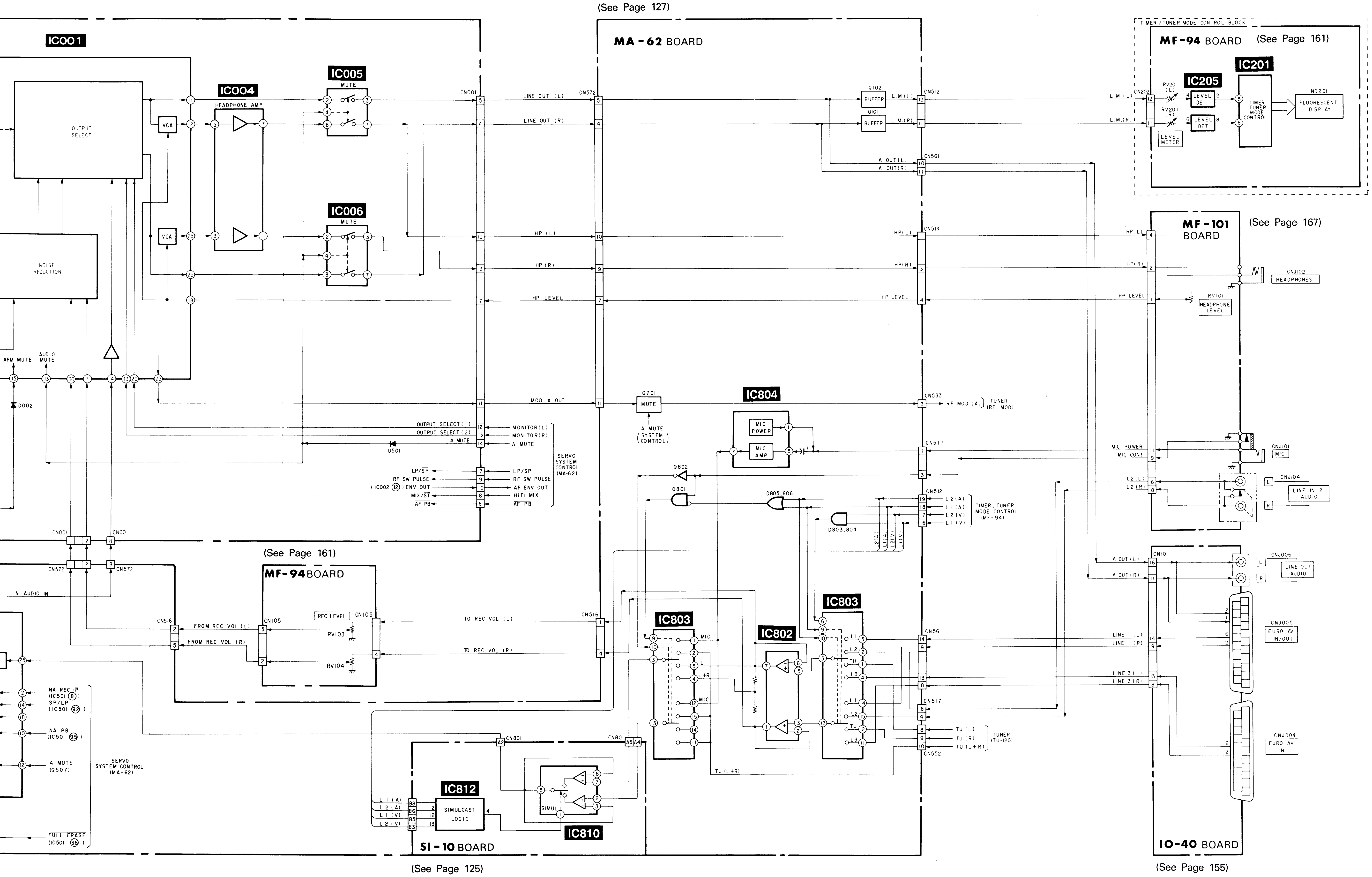
3-11. SYSTEM CONTROL — AUDIO BLOCK INTERFACE

	Mode		STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
Signal	I/O	Pin No.													
$\overline{\text{AF PB}}$	O	Pin (96) of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	*1	H
MONI (L)	O	Pin ⑩ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
MONI (R)	O	Pin ⑨ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
AF ENVELOP	I	Pin (61) of IC501 on MA-62 board													
NA•PB	O	Pin (95) of IC501 on MA-62 board	L	L	L	H	H	H	H	H	H	L	L	*1	L
$\overline{\text{A MUTE}}$	O	Pin ㊳ of IC501 on MA-62 board	L	L	L	*4	H	H	H	H	H	H	H	H	H
SP•2	O	Pin (92) of IC501 on MA-62 board	*2	*2	*2	*3	*3	*3	*3	*3	*3	*2	*2	*3	*3
REC•$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L

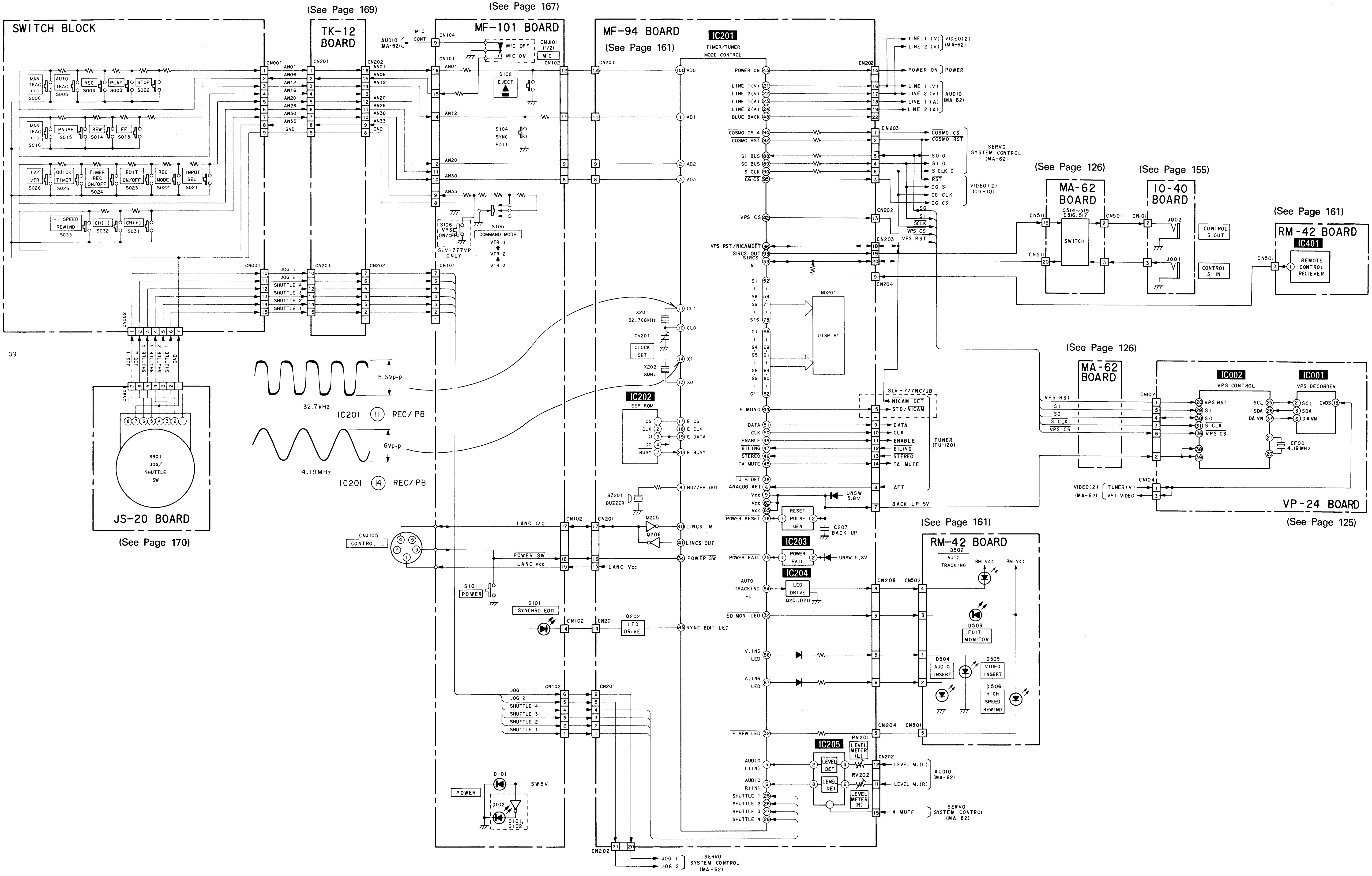
*1. According to audio monitor
*2. According to SP/LP selector. "L": SP mode, "H": LP mode.
*3. According to tape REC mode. "L": SP mode, "H": LP mode.
*4. "H": when CTL signal is not played back.

3-12. AUDIO BLOCK DIAGRAM

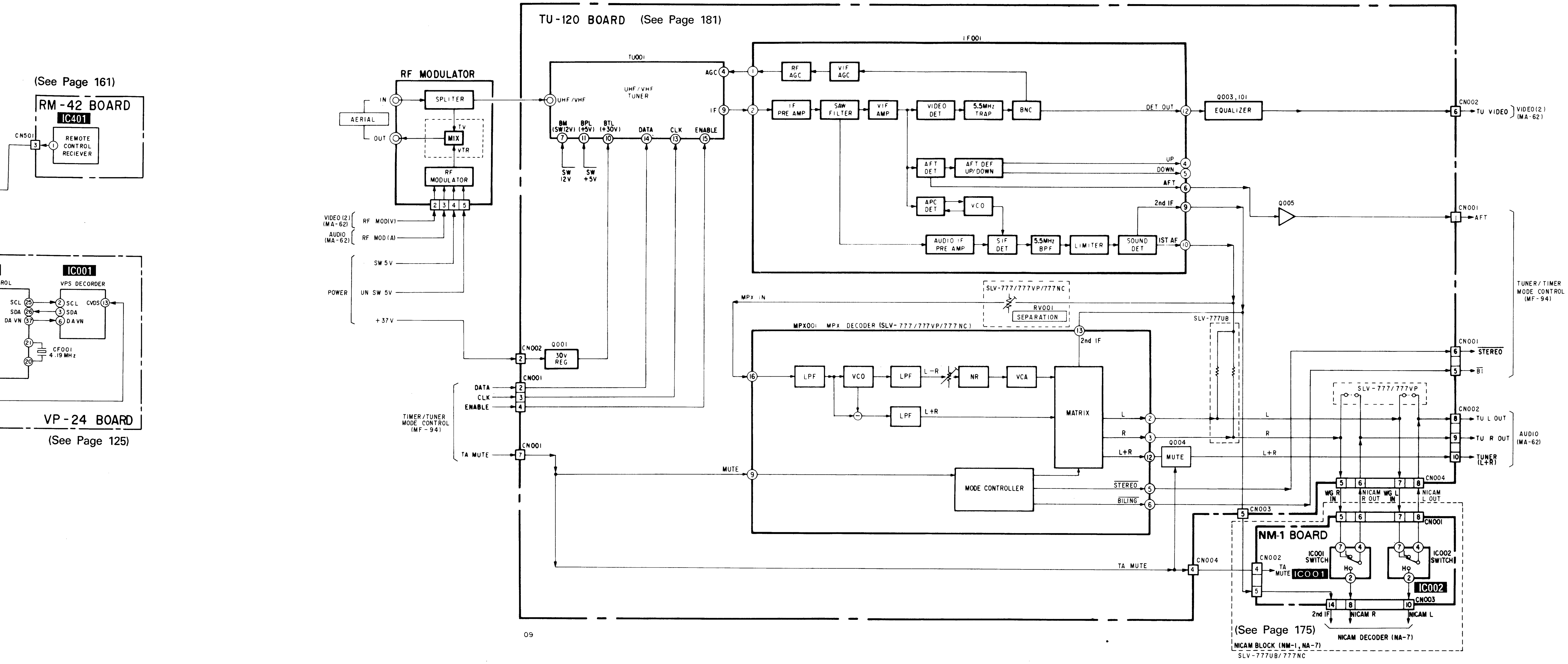

(See Page 126)
RP-63 BOARD
(See Page 99)
MA-62 BOARD
HF-9 BOARD
(See Page 151)
CHECK PIN
CN002
IC101
AFM REC/PB AMP
IC002
AFM MOD/DEMOD
IC001
FM AUDIO HEAD
CH1
CH2
CN801
Q101
BUFFER
REC AMP
REC AGC
L/R MIX
AGC DET
REC PB
PB REC
CH1 PRE AMP
CH2 PRE AMP
AMP
H
L
REC AMP MUTE
PB +B
PB AMP +B
CN101
AF RF
AF RF (CH2)
AF RF (CH1)
AF REC·P̄
PB 5V
SERVO SYSTEM CONTROL (MA-62)
HEAD SW
VCA
FF
FL002
1.3MHz BPF
FL001
1.7MHz BPF
DEMODULATOR
HOLD AMP
ENV OUT
MUTE DET
D.O. DET
MMV
1.3MHz VCO
1.7MHz VCO
RV008
1.3MHz VCO ADJ
RV002
1.7MHz VCO ADJ
RV007
PB LEVEL ADJ L-CH
RV009
DEVIATION ADJ L-CH
RV003
DEVIATION ADJ R-CH
RV004
PB LEVEL ADJ R-CH
RV006
SW PULSE DELAY ADJ
RV005
PB RF LEVEL
ENV.OUT
LP/SP̄ (CN002 ⑦)
+5V
RF SW PULSE (CN001 ④)
REC/PB̄
MIX/ST̄ (CN002 ⑧)
OUTPUT SELECT
NOISE REDUCTION
AFM MUTE
AUDIO MUTE
D003
D002
AF PB (CN002 ⑥)
CN001
CN572
N AUDIO IN
(See Page 126)
MA-62 BOARD
IC251
REC/PB AMP
REC EQ
SP/LP
AUDIO REC/PB HEAD
CN573
AUDIO ERASE HEAD
FULL ERASE HEAD
CN574
RV251
REC BIAS
BIAS TRAP
POWER ON/OFF MUTE
REC MUTE
REC EE PB
LINE AMP
AGC DET
AGC
EE MUTE
PB/EE
REC/EE
EE PB REC
Q251,T251
BIAS/ERASE OSC
B+
CURRENT PROTECTOR
SWD 9V
PB EQ
PB MUTE
MUTE
Q254,T252
ERASE OSC
Q253
SW
SW9V
REC/EE
SP/LP
SP/LP
PB/EE
MUTE
NA REC·P̄ (IC501 ⑧)
SP/LP̄ (IC501 (92))
NA PB (IC501 (95))
A MUTE (Q507)
FULL ERASE (IC501 (36))
SERVO SYSTEM CONTROL (MA-62)


IC001
OUTPUT SELECT
NOISE REDUCTION
VCA
IC004
HEADPHONE AMP
IC005
MUTE
IC006
MUTE
AFM MUTE
AUDIO MUTE
D002
CN001
CN572
N AUDIO IN
LINE OUT (L)
LINE OUT (R)
HP (L)
HP (R)
HP LEVEL
MOD A OUT
OUTPUT SELECT(1)
OUTPUT SELECT(2)
A MUTE
D501
MONITOR(L)
MONITOR(R)
LP/SP
RF SW PULSE
(IC002 ⑫) ENV OUT
AF ENV OUT
MIX/ST
HiFi MIX
AF PB
SERVO SYSTEM CONTROL (MA-62)
(See Page 127)
MA-62 BOARD
Q102
Q101
BUFFER
L.M.(L)
L.M.(R)
CN512
CN561
A OUT(L)
A OUT(R)
CN514
Q701
MUTE
A MUTE (SYSTEM CONTROL)
IC804
MIC POWER
MIC AMP
CN533
RF MOD (A)
TUNER (RF MOD)
CN517
Q802
Q801
D805,806
D803,804
L2(A)
L1(A)
L2(V)
L1(V)
TIMER, TUNER MODE CONTROL (MF-94)
(See Page 161)
MF-94 BOARD
REC LEVEL
CN105
CN516
FROM REC VOL (L)
FROM REC VOL (R)
RV103
RV104
TO REC VOL (L)
TO REC VOL (R)
IC803
IC802
MIC
L+R
TU
L1
L2
L3
TU (L+R)
CN552
TU (L)
TU (R)
TUNER (TU-120)
NA REC/P (IC501 ⑧)
SP/LP (IC501 92)
NA PB (IC501 93)
A MUTE (Q507)
SERVO SYSTEM CONTROL (MA-62)
FULL ERASE (IC501 36)
CN801
IC812
SIMULCAST LOGIC
IC810
SIMUL
SI-10 BOARD
(See Page 125)
TIMER/TUNER MODE CONTROL BLOCK
MF-94 BOARD (See Page 161)
IC205
IC201
RV201 (L)
RV201 (R)
CN202
LEVEL DET
LEVEL METER
TIMER TUNER MODE CONTROL
ND201
FLUORESCENT DISPLAY
MF-101 BOARD
(See Page 167)
HP(L)
HP(R)
CNJ102
HEADPHONES
RV101
HEADPHONE LEVEL
MIC POWER
MIC CONT
CNJ101
MIC
L2(L)
L2(R)
CNJ104
LINE IN 2 AUDIO
CN101
CNJ006
LINE OUT AUDIO
LINE 1 (L)
LINE 1 (R)
LINE 3 (L)
LINE 3 (R)
CNJ005
EURO AV IN/OUT
CNJ004
EURO AV IN
IO-40 BOARD
(See Page 155)

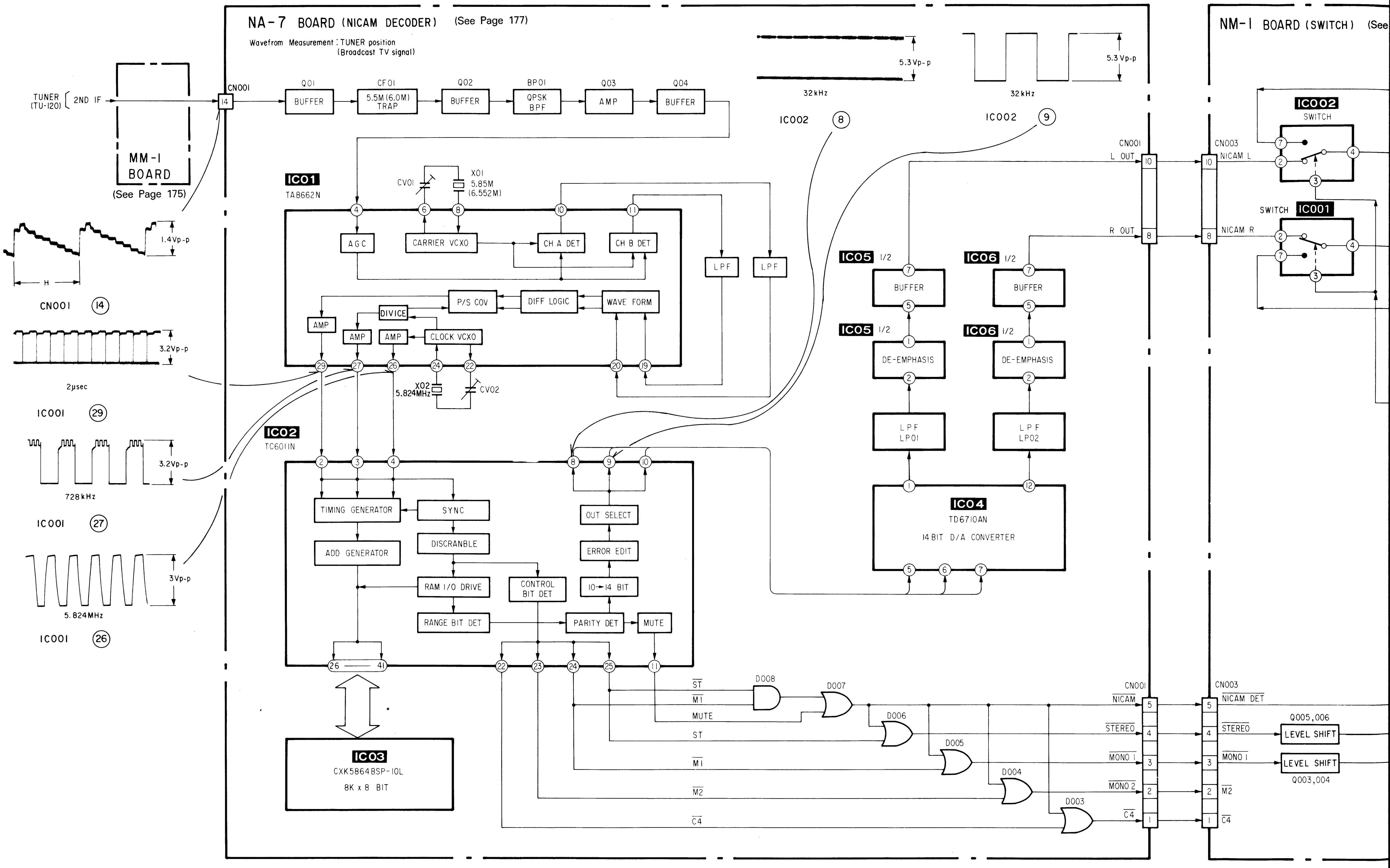
3-13. TIMER, TUNER, MODE CONTROL BLOCK DIAGRAM


SWITCH BLOCK
(See Page 169)
TK-12 BOARD
(See Page 167)
MF-101 BOARD
MF-94 BOARD
(See Page 161)
IC201
TIMER/TUNER MODE CONTROL
MAN TRAC (+) S006
AUTO TRAC S005
REC S004
PLAY S003
STOP S002
MAN TRAC (-) S016
PAUSE S015
REW S014
FF S013
TV/VTR S026
QUICK TIMER S025
TIMER REC ON/OFF S024
EDIT ON/OFF S023
REC MODE S022
INPUT SEL S021
HI SPEED REWIND S033
CH(-) S032
CH(+) S031
CN001
CN201
CN202
CN101
CN102
CN104
AN01
AN06
AN12
AN16
AN20
AN26
AN30
AN33
GND
JOG 1
JOG 2
SHUTTLE 4
SHUTTLE 3
SHUTTLE 2
SHUTTLE 1
AUDIO (MA-62)
MIC CONT
MIC OFF
MIC ON
CNJ101 (1/2)
MIC
S102 EJECT
S104 SYNC EDIT
S106 VPS ON/OFF
SLV-777VP ONLY
S105 COMMAND MODE
VTR 1
VTR 2
VTR 3
CN002
CN901
S901 JOG/SHUTTLE SW
JS-20 BOARD
(See Page 170)
5.6Vp-p
32.7kHz
IC201 (11) REC/PB
6Vp-p
4.19MHz
IC201 (14) REC/PB
CNJ105 CONTROL L
LANC I/O
POWER SW
LANC Vcc
S101 POWER
D101 SYNCHRO EDIT
POWER
D101
D102
Q101, Q102
SW5V
X201 32.768kHz
CV201 CLOCK SET
X202 8MHz
IC202 EEP ROM
CS
CLK
DI
DO
BUSY
E CS
E CLK
E DATA
E BUSY
BZ201 BUZZER
BUZZER OUT
Q205
Q206
LINCS IN
LINCS OUT
POWER SW
LANC Vcc
Q202 LED DRIVE
SYNC EDIT LED
AD0
AD1
AD2
AD3
POWER ON
LINE 1(V)
LINE 2(V)
LINE 1(A)
LINE 2(A)
BLUE BACK
COSMO CS 4
COSMO RST
SI BUS
SO BUS
S CLK
CG CS
VPS CS
VPS RST/NICAMDET
SIRCS OUT
SIRCS IN
S1 … S16
G1 … G11
ND201 DISPLAY
F MONO
DATA
CLK
ENABLE
BILING
STEREO
TA MUTE
TU H DET
ANALOG AFT
Vcc
POWER RESET
RESET PULSE GEN
C207 BACK UP
UNSW 5.8V
IC203 POWER FAIL
POWER FAIL
IC204 LED DRIVE Q201, D211
AUTO TRACKING LED
ED MONI LED
V.INS LED
A.INS LED
F REW LED
IC205
LEVEL DET
RV201 LEVEL METER (L)
RV202 LEVEL METER (R)
AUDIO L(IN)
AUDIO R(IN)
SHUTTLE 1
SHUTTLE 2
SHUTTLE 3
SHUTTLE 4
CN202
JOG 1
JOG 2
SERVO SYSTEM CONTROL (MA-62)
LINE 1 (V)
LINE 2 (V)
VIDEO(2) (MA-62)
POWER ON } POWER
LINE 1 (A)
LINE 2 (A)
AUDIO (MA-62)
CN203
COSMO CS
COSMO RST
SO
SI
S CLK
RST
CG SI
CG CLK
CG CS
SERVO SYSTEM CONTROL (MA-62)
VIDEO(2) (CG-10)
SCLK
VPS CS
VPS RST
CN204
SLV-777NC/UB
NICAM DET
STD/NICAM
TUNER (TU-120)
AFT
BACK UP 5V
(See Page 126)
MA-62 BOARD
Q514~519 Q516, 517
SWITCH
CN511
CN501
(See Page 155)
10-40 BOARD
CN101
J002
J001
CONTROL S OUT
CONTROL S IN
(See Page 161)
RM-42 BOARD
IC401
REMOTE CONTROL RECIEVER
(See Page 126)
MA-62 BOARD
IC002 VPS CONTROL
IC001 VPS DECORDER
CN102
VPS RST
SI
SO
S CLK
VPS CS
SCL
SDA
DA VN
CVDS
CF001 4.19MHz
CN104
VIDEO(2) (MA-62)
TUNER (V)
VPT VIDEO
VP-24 BOARD
(See Page 125)
(See Page 161)
RM-42 BOARD
D502 AUTO TRACKING
RM Vcc
D503 EDIT MONITOR
D504 AUDIO INSERT
D505 VIDEO INSERT
D506 HIGH SPEED REWIND
CN208
CN502
CN501
LEVEL M.(L)
LEVEL M.(R)
AUDIO (MA-62)
A MUTE
SERVO SYSTEM CONTROL (MA-62)

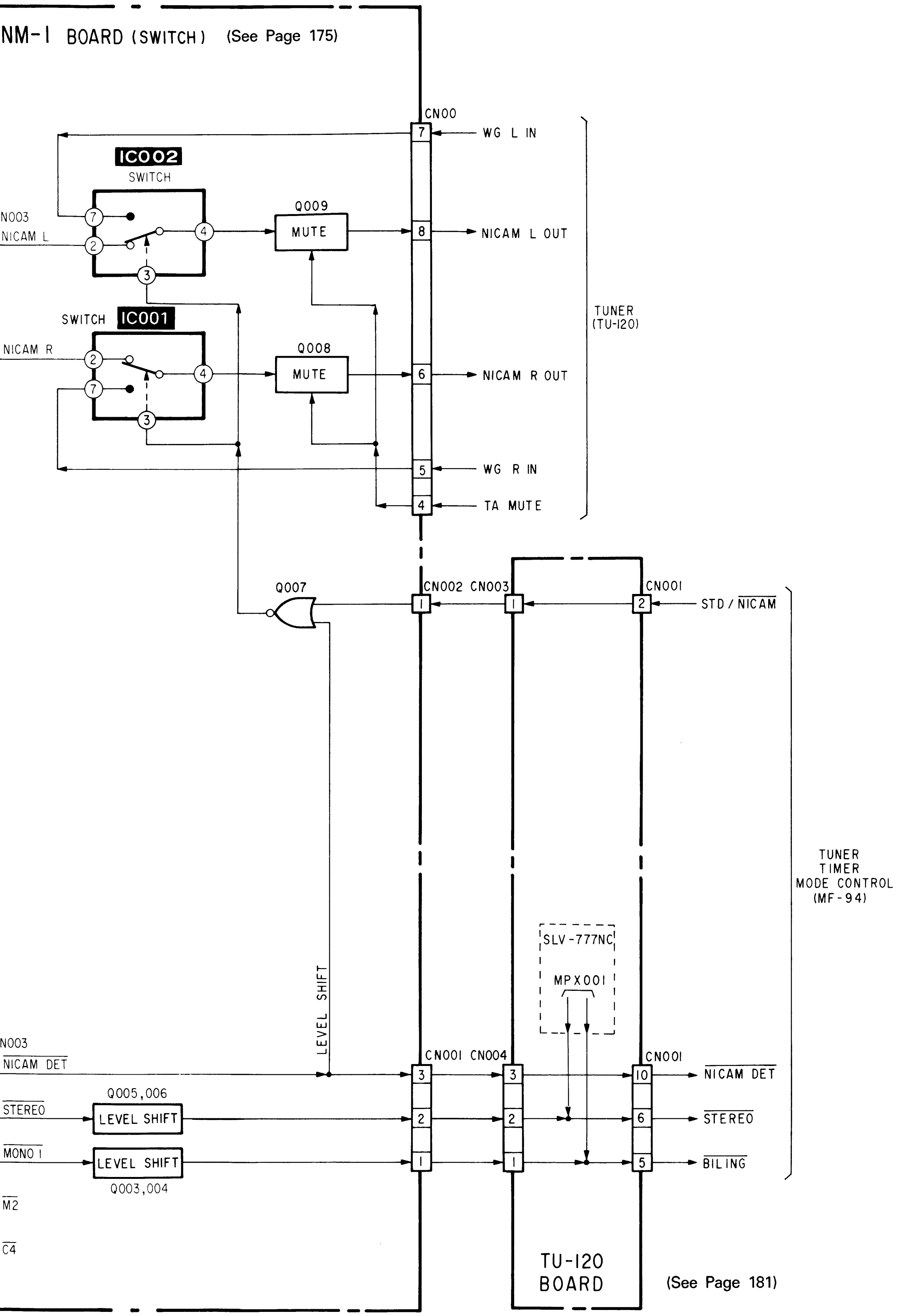
3-14. TUNER BLOCK DIAGRAM


(See Page 161)
RM-42 BOARD
IC401
CN501
REMOTE CONTROL RECIEVER
IC001
ROL
VPS DECORDER
SCL
SDA
DA VN
CVDS
CF001 4.19 MHz
VP-24 BOARD
(See Page 125)
RF MODULATOR
AERIAL
IN
OUT
SPLITER
TV
MIX
VTR
RF MODULATOR
VIDEO (2) (MA-62)
RF MOD(V)
AUDIO (MA-62)
RF MOD (A)
POWER
SW 5 V
UN SW 5V
+ 37 V
TU-120 BOARD (See Page 181)
TU001
UHF/VHF TUNER
UHF/VHF
AGC
IF
BM (SW12V)
BPL (+5V)
BTL (+30V)
DATA
CLK
ENABLE
SW 12V
SW +5V
CN002
Q001
30V REG
CN001
DATA
CLK
ENABLE
TIMER/TUNER MODE CONTROL (MF-94)
TA MUTE
IF001
RF AGC
VIF AGC
IF PRE AMP
SAW FILTER
VIF AMP
VIDEO DET
5.5MHz TRAP
BNC
DET OUT
AFT DET
AFT DEF UP/DOWN
UP
DOWN
AFT
APC DET
VCO
2nd IF
AUDIO IF PRE AMP
SIF DET
5.5MHz BPF
LIMITER
SOUND DET
1ST AF
Q003, 101
EQUALIZER
CN002
TU VIDEO
VIDEO (2) (MA-62)
Q005
CN001
AFT
SLV-777/777VP/777NC
RV001
SEPARATION
MPx IN
MPX001 MPX DECODER (SLV-777/777VP/777NC)
2nd IF
LPF
VCO
LPF
L-R
NR
VCA
LPF
L+R
MATRIX
L
R
L+R
MUTE
MODE CONTROLLER
STEREO
BILING
TA MUTE
Q004
MUTE
SLV-777UB
TUNER/TIMER MODE CONTROL (MF-94)
CN001
STEREO
BI
SLV-777/777VP
CN002
TU L OUT
TU R OUT
TUNER (L+R)
AUDIO (MA-62)
CN004
WG R IN
NICAM R OUT
WG L IN
NICAM L OUT
CN003
CN004
NM-1 BOARD
CN001
CN002
TA MUTE
IC001
IC001 SWITCH
IC002 SWITCH
IC002
H
CN003
2nd IF
NICAM R
NICAM L
(See Page 175)
NICAM DECODER (NA-7)
NICAM BLOCK (NM-1, NA-7)
SLV-777UB/777NC
09

3-15. NICAM BLOCK DIAGRAM


NA-7 BOARD (NICAM DECODER) (See Page 177)
Wavefrom Measurement : TUNER position (Broadcast TV signal)
TUNER (TU-120)
2ND IF
MM-1 BOARD
(See Page 175)
CN001
14
1.4Vp-p
H
CN001 (14)
3.2Vp-p
2μsec
IC001 (29)
3.2Vp-p
728kHz
IC001 (27)
3Vp-p
5.824MHz
IC001 (26)
Q01 BUFFER
CF01 5.5M (6.0M) TRAP
Q02 BUFFER
BP01 QPSK BPF
Q03 AMP
Q04 BUFFER
IC01 TA8662N
CV01
X01 5.85M (6.552M)
AGC
CARRIER VCXO
CH A DET
CH B DET
LPF
LPF
P/S COV
DIFF LOGIC
WAVE FORM
DIVICE
AMP
AMP
AMP
CLOCK VCXO
X02 5.824MHz
CV02
IC02 TC6011N
TIMING GENERATOR
SYNC
ADD GENERATOR
DISCRANBLE
RAM I/O DRIVE
CONTROL BIT DET
RANGE BIT DET
OUT SELECT
ERROR EDIT
10→14 BIT
PARITY DET
MUTE
26 — 41
IC03 CXK5864BSP-10L
8K x 8 BIT
5.3Vp-p
32kHz
IC002 (8)
5.3Vp-p
32kHz
IC002 (9)
IC05 1/2 BUFFER
IC06 1/2 BUFFER
IC05 1/2 DE-EMPHASIS
IC06 1/2 DE-EMPHASIS
LPF LP01
LPF LP02
IC04 TD6710AN
14 BIT D/A CONVERTER
CN001
L OUT
R OUT
ST
MI
MUTE
ST
MI
M2
C4
D008
D007
D006
D005
D004
D003
NICAM
STEREO
MONO 1
MONO 2
C4
NM-1 BOARD (SWITCH) (See
IC002 SWITCH
SWITCH IC001
CN003
NICAM L
NICAM R
NICAM DET
STEREO
MONO 1
M2
C4
Q005,006 LEVEL SHIFT
LEVEL SHIFT Q003,004

09


NM-1 BOARD (SWITCH) (See Page 175)
CN00
IC002
SWITCH
Q009
MUTE
N003
NICAM L
SWITCH
IC001
NICAM R
Q008
MUTE
WG L IN
NICAM L OUT
NICAM R OUT
WG R IN
TA MUTE
TUNER (TU-120)
Q007
CN002 CN003
CN001
STD / NICAM
TUNER TIMER MODE CONTROL (MF-94)
LEVEL SHIFT
SLV-777NC
MPX001
N003
NICAM DET
CN001 CN004
CN001
NICAM DET
STEREO
BILING
Q005,006
STEREO
LEVEL SHIFT
MONO I
LEVEL SHIFT
Q003,004
M2
C4
TU-120 BOARD
(See Page 181)

3-16. NICAM (NEAR INSTANTANEOUS COMPAND SYSTEM) (SLV-777NC/UB ONLY)

NICAM, or NICAM 728 which refers to its bit rate,stands for 14-to-10 bit Near Instantaneous Compand System which executes signal processing of PCM, employing the television's PCM sound multiplex broadcast system. By utilizing digital method for TV sound multiplex bradcasting, the following types of broadcasts are accomplished which heretofore were impossible to achieve with analog multiplex broadcasting.

1) High quality sound broadcast independent from FM sound (analog).
2) Data broadcast, while retaining the compatibility of receiving equipment. Tackles future diversification to facsimile broadcast, etc. (but not with SLV-777UB/777NC).

3-16-1. NICAM Standard

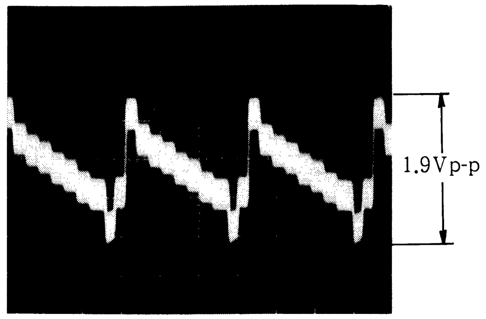
		SYSTEM-B/G Europe, etc.	SYSTEM-2 UK
Analog sound (Conventional mono 1ch TV sound)	Modulation method	FM	
	Sub-carrier frequency	5.5 MHz	6.0 MHz
	Signal level (image: FM)	20:1	10:1
Digital sound (NICAM)	Modulation method	DOPSK	
	Sub-carrier frequency	5.850 MHz	6.552 MHz
	Signal level (image: FM)	100:1	
	Bit rate	728K 6PS	
	Sampling frequency	32 kHz	
	Quantized bit count	14 bit	
	Compression/ expansion	10-to-14 bit ELONGATION COMPAND	
	Digital sound channels	2-CH	

3-16-2. NICAM Receiving System

The RF signal that is input from ANT is selected, amplified, & IF converted by the tuner; and it then enters VIF. At VIF, it is input into the image detection circuit for acquiring FM signal & OPSK signal as intercarrier; as well as into its parallel image detection circuit for reproducing image signal. To acquire QPSK signal of superior quality, quasi-parallel tone method is employed here. The QPSK signal that is output from VIF passes though QPSK DEMOD, PCM decoder, & D/A converter; then enters audio SW block, and is finally output as L, R signals.

3-16-3. Description of NA-7 Board (NICAM Decoder)

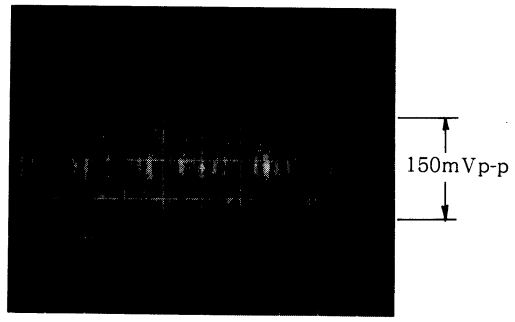
The 2nd IF signal that is output from Pin ⑨ of IF block passes through NM-1 board substrate, and enters Pin ⑭ of CN01 on NA-7 board (Fig. 1.).



2nd IF signal
(Pin ⑭ of CN01)

Fig. 1.

Here, the 2nd IF signal is superimposed with video signal & FM carrier 5.5 MHz [∗6.0 MHz] signal, aside from QPSK signal. After passing through buffer Q01, the Pin ⑭ 2nd IF signal is FM trapped (CF01), and then passes through QPSK BPF (BP01) where its unwanted signal is eliminated. Next, it undergoes level adjustment by AMP Q03 (about 13 dB), and is then iuput into QPSK demodulation IC IC01, Pin ④ (Fig. 2.).



QPSK signal
(Pin ④ of IC01)

Fig. 2.

The input level at Pin ④ is 150 mVp-p for standerd signal (P/S2=20 dB).

After passing through AGC, the signal that is input from Pin ④ is subject to phase synchronization detection by two VCXO, that is by a signal which is phase synchronized with 2nd IF carrier 5.58 MHz [∗6.552 MHz] and a signal whose phase is 180° different from it; next it is output as eye pattern through Pins ⑩, ⑪ from where it then passes through the prescribed base bank LPF, and is once again input into IC01.

The signal entering Pins ⑲, ⑳ (Fig. 3-1.) passes through wave shaper, difference logic, parallel to serial conversion; and is then output through Pin ㉙ as PCM data.

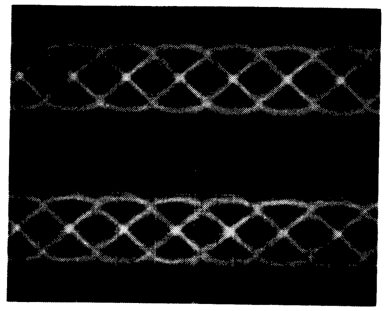

Eye pattern
(Pin ⑲ of IC01 up,
Pin ⑳ of IC01 down)

Fig. 3-1.

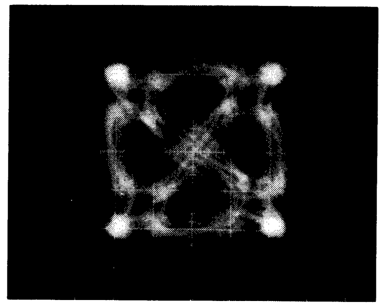
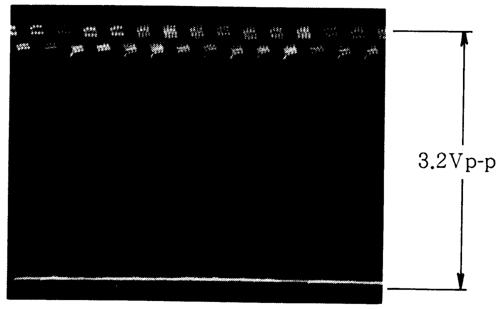

Eye pattern
(X-Y wave of Fig. 3-1.)

Fig. 3-2.

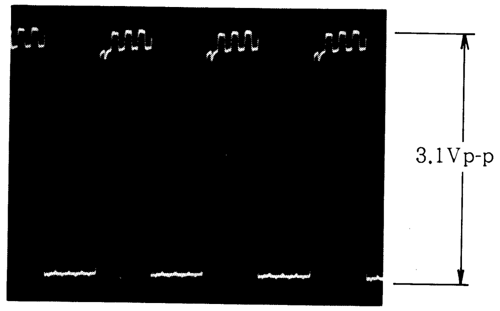
Similarly, PCM master clock 5.824 MHz is output through Pin㉘, and its 1/8th 728kHz bit clock through Pin ㉗.

The PCM data & clocks that are output through Pins ㉘ (Fig. 6.), ㉗ (Fig. 5.), ㉙ (Fig. 4.) of IC01 are input into the next PCM decoder IC02.



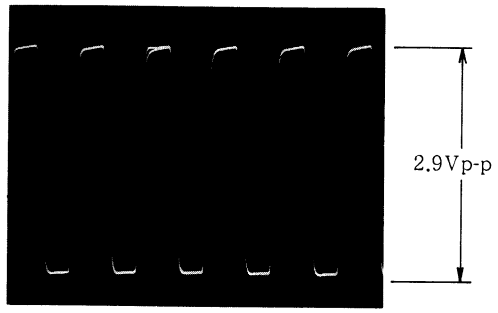
PCM data
(Pin ㉙ of IC01)

Fig. 4.



728 kHz bit clock
(Pin ㉗ of IC01)

Fig. 5.

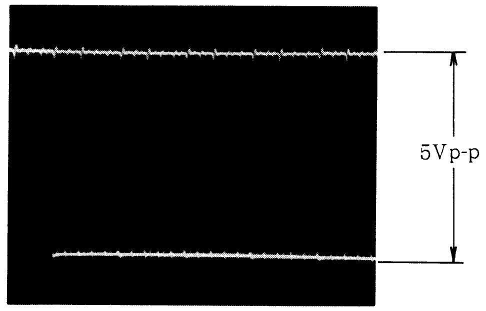


5.824 MHz master clock
(Pin ㉘ of IC01)

Fig. 6.

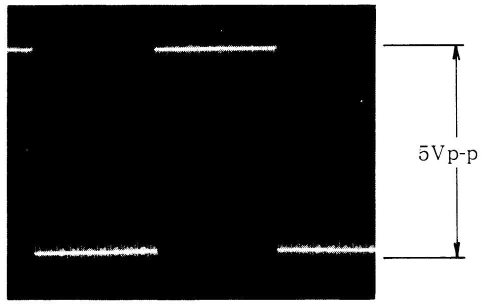
The PCM decoder executes various signal processing, like, descramble, deinterleave, range bit detection, 10-to-14 bit elongation, error compensation, muting, and so on.

As a result of the various signal processing executed by IC02, identification signal as well as the shift clock (Fig. 9.), work clock (Fig. 8.), DA data (Fig. 7.), etc. that is needed by D/A converter are output.



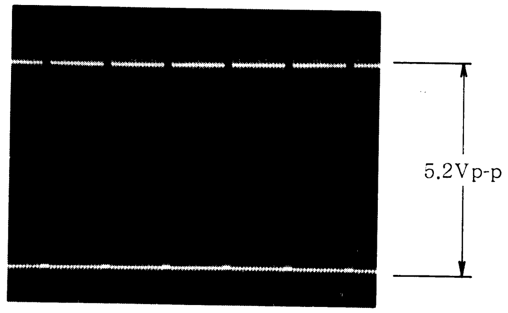
DA data
(Pin ⑩ of IC02)

Fig. 7.



Word clock
(Pin ⑨ of IC02)

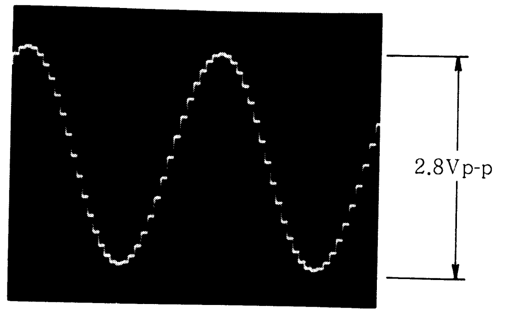
Fig. 8.



Sift clock
(Pin ⑧ of IC02)

Fig. 9.

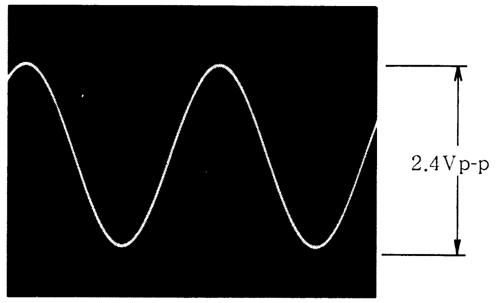
At IC04, the input DA data, after passing through integrator and sample-hold circuit, is convertedinto analog signal by a 14-bit 2ch D/A converter; and is then output through Pin ① Lch (Fig. 10.), Pin ⑫ Rch (Fig. 10.).



D/A audio out
(Pins ①, ⑫ of IC04)

Fig. 10.

After passing through L.P.F., the L, R signal passes through buffer and de-emphasis circuit that is composed of IC05, IC06; and is then output as CN01 Pin ⑩ L (Fig. 11.), Pin ⑧ R (Fig.11.) signal.



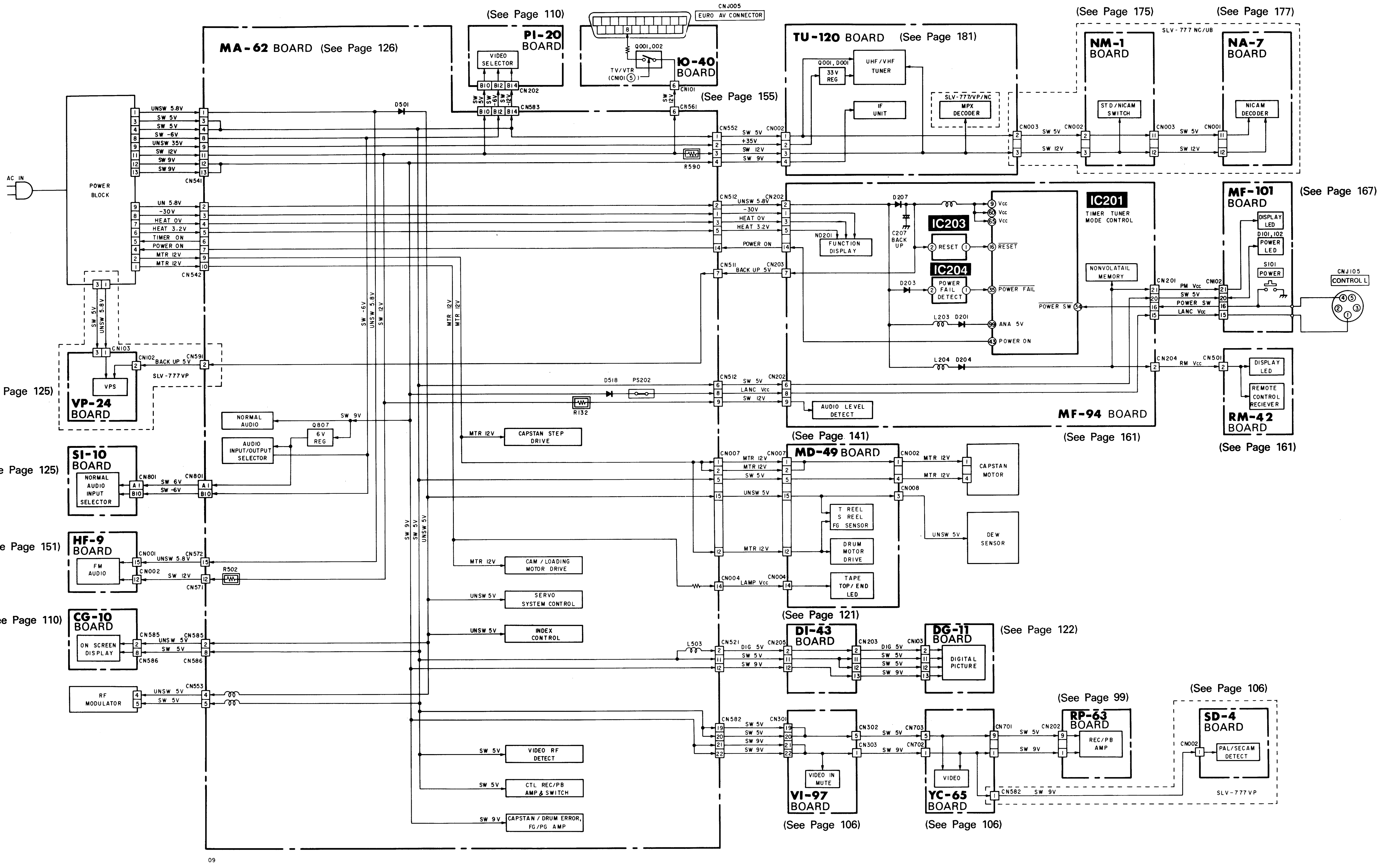
Audio out
(Pins ⑧, ⑩ of IC01)

Fig. 11.

Identification signal is prepared with a combination of ST, M, MUTE signal; and it is then input into IC201 on MF-94 board.

* Frequency shown in [ ] is UK board value.

3-17. POWER BLOCK DIAGRAM


MA-62 BOARD (See Page 126)
(See Page 110)
PI-20 BOARD
VIDEO SELECTOR
CN202
CN583
CNJ005
EURO AV CONNECTOR
Q001,002
TV/VTR (CN101 ⑤)
IO-40 BOARD
CN101
CN561
(See Page 155)
TU-120 BOARD (See Page 181)
Q001, D001 33V REG
UHF/VHF TUNER
IF UNIT
SLV-777/VP/NC MPX DECODER
(See Page 175)
(See Page 177)
SLV-777 NC/UB
NM-1 BOARD
NA-7 BOARD
STD/NICAM SWITCH
NICAM DECODER
CN003
CN002
CN001
SW 5V
SW 12V
AC IN
POWER BLOCK
UNSW 5.8V
SW 5V
SW -6V
UNSW 35V
SW 12V
SW 9V
CN541
UN 5.8V
-30V
HEAT 0V
HEAT 3.2V
TIMER ON
POWER ON
MTR 12V
CN542
D501
CN552
+35V
R590
CN512
CN202
CN511
CN203
BACK UP 5V
D207
C207 BACK UP
ND201 FUNCTION DISPLAY
IC203
RESET
IC204
POWER FAIL DETECT
D203
L203 D201
L204 D204
IC201
TIMER TUNER MODE CONTROL
NONVOLATAIL MEMORY
Vcc
POWER FAIL
POWER SW
ANA 5V
POWER ON
CN201
CN102
PM Vcc
POWER SW
LANC Vcc
MF-101 BOARD
(See Page 167)
DISPLAY LED
D101,102 POWER LED
S101 POWER
CNJ105 CONTROL L
CN204
CN501
RM Vcc
DISPLAY LED
REMOTE CONTROL RECIEVER
RM-42 BOARD
(See Page 161)
MF-94 BOARD
(See Page 161)
AUDIO LEVEL DETECT
D518
PS202
R132
CN103
CN102
CN591
SLV-777VP
VPS
VP-24 BOARD
(See Page 125)
NORMAL AUDIO
Q807 6V REG
AUDIO INPUT/OUTPUT SELECTOR
MTR 12V
CAPSTAN STEP DRIVE
(See Page 141)
MD-49 BOARD
CN007
CN002
CN008
CN004
CAPSTAN MOTOR
T REEL S REEL FG SENSOR
DRUM MOTOR DRIVE
TAPE TOP/END LED
DEW SENSOR
UNSW 5V
LAMP Vcc
SI-10 BOARD
(See Page 125)
NORMAL AUDIO INPUT SELECTOR
CN801
SW 6V
HF-9 BOARD
(See Page 151)
FM AUDIO
CN001
CN572
CN002
CN571
R502
CAM/LOADING MOTOR DRIVE
SERVO SYSTEM CONTROL
INDEX CONTROL
CG-10 BOARD
(See Page 110)
ON SCREEN DISPLAY
CN585
CN586
RF MODULATOR
CN553
(See Page 121)
DI-43 BOARD
L503
CN521
CN205
CN203
CN103
DIG 5V
DG-11 BOARD
(See Page 122)
DIGITAL PICTURE
CN582
CN301
CN302
CN303
CN703
CN702
CN701
VIDEO IN MUTE
VI-97 BOARD
(See Page 106)
VIDEO
YC-65 BOARD
(See Page 106)
(See Page 99)
RP-63 BOARD
REC/PB AMP
(See Page 106)
SD-4 BOARD
PAL/SECAM DETECT
SLV-777VP
VIDEO RF DETECT
CTL REC/PB AMP & SWITCH
CAPSTAN/DRUM ERROR, FG/PG AMP
09

RP-63 (HEAD AMP) PRINTED WIRING BOARD

— Ref. No. RP-63 BOARD: 6000 series —

DIODE

D102	8-719-400-18	DIODE MA152WK
D801	8-719-400-18	DIODE MA152WK
D802	8-719-400-18	DIODE MA152WK
D803	8-719-400-18	DIODE MA152WK

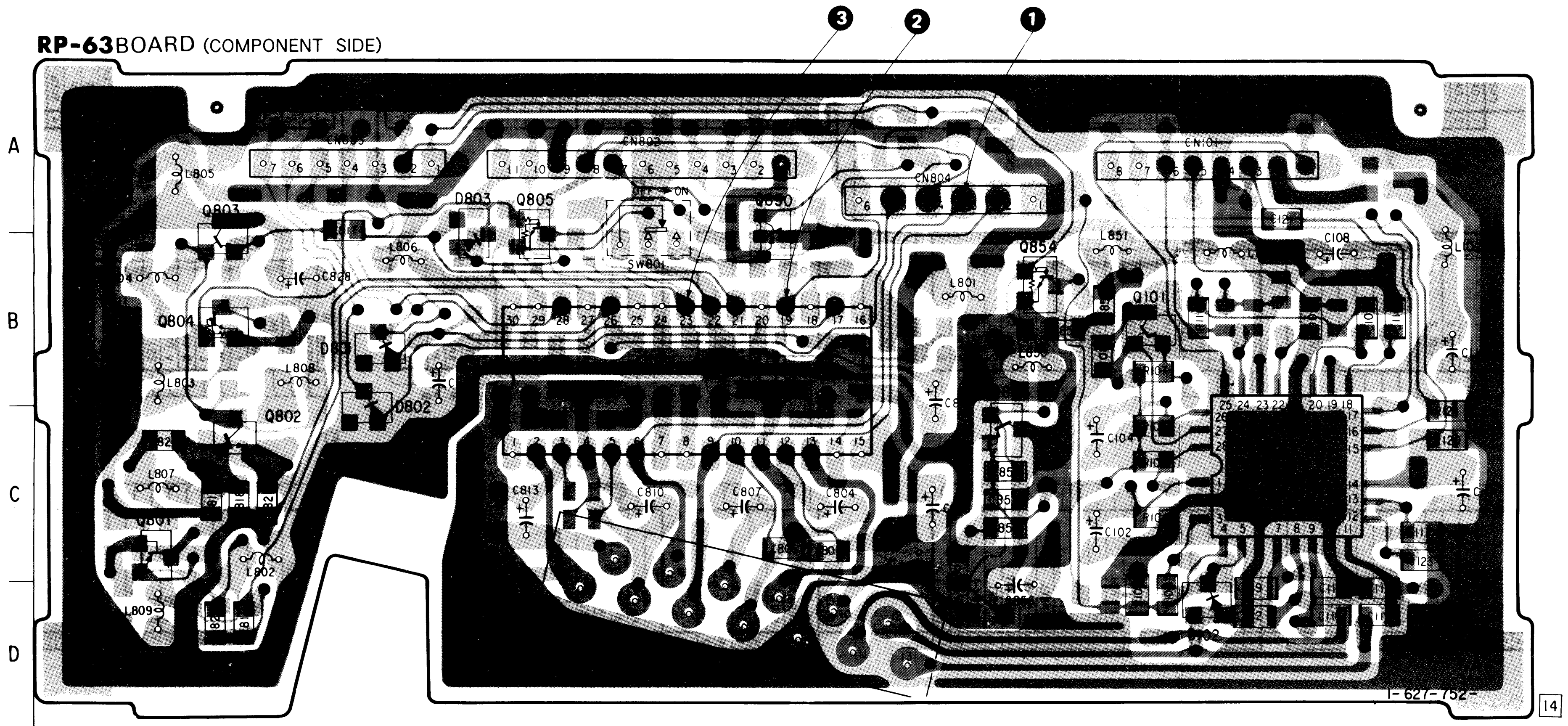
IC

IC101	8-759-320-55	IC HA12115MP
IC101	8-759-320-55	IC HA12115MP
IC801	8-759-320-52	IC HA118019NT

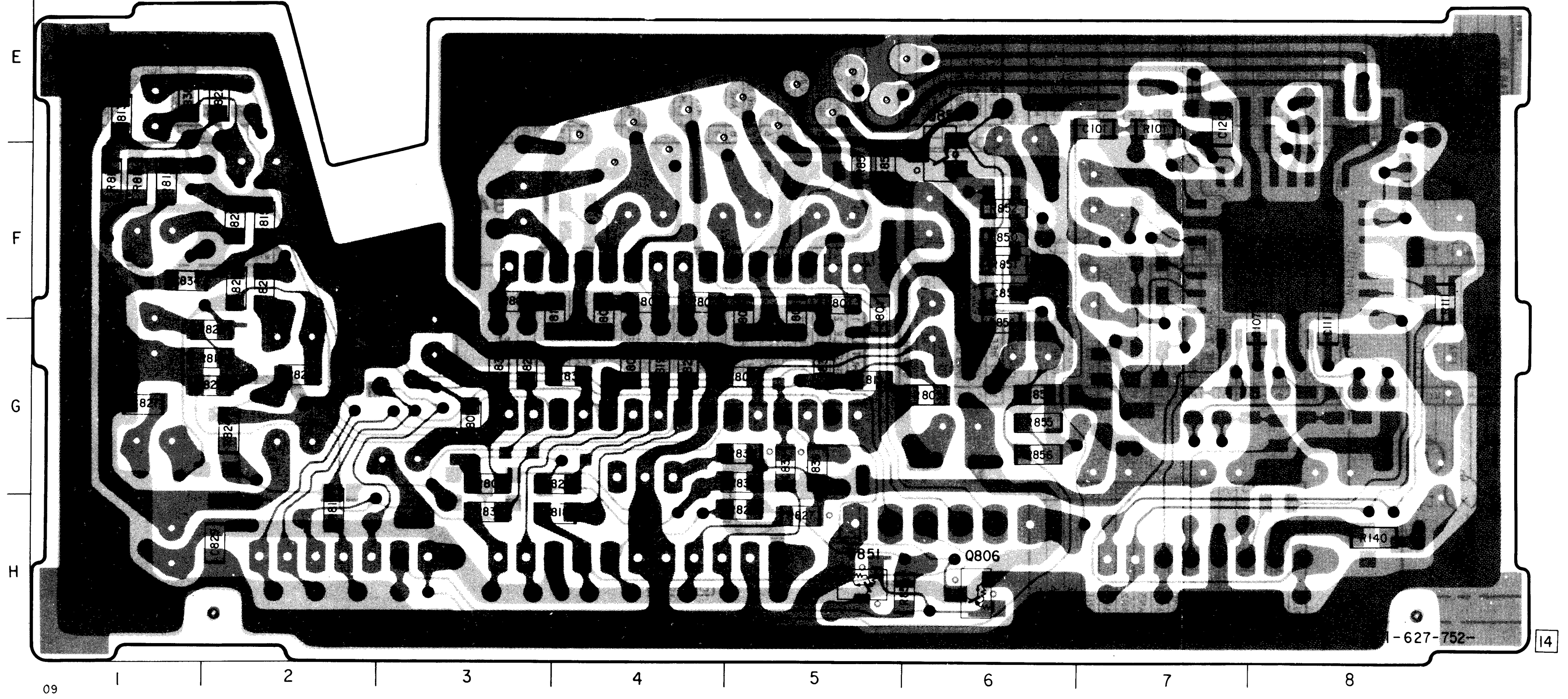
TRANSISTOR

Q101	8-729-216-22	TRANSISTOR 2SA1162
Q801	8-729-216-22	TRANSISTOR 2SA1162
Q802	8-729-901-78	TRANSISTOR 2SC2412K-R
Q803	8-729-901-78	TRANSISTOR 2SC2412K-R
Q804	8-729-901-01	TRANSISTOR DTC144EK
Q805	8-729-901-01	TRANSISTOR DTC144EK
Q806	8-729-901-01	TRANSISTOR DTC144EK
Q850	8-729-301-98	TRANSISTOR 2SB1000A-L
Q851	8-729-901-01	TRANSISTOR DTC144EK
Q852	8-729-216-22	TRANSISTOR 2SA1162
Q853	8-729-216-22	TRANSISTOR 2SA1162
Q854	8-729-901-01	TRANSISTOR DTC144EK

RP-63BOARD (COMPONENT SIDE)


❸
❷
❶
A
B
C
D
CN803
CN802
CN804
CN101
L805
Q803
D803
Q805
Q850
SW801
OFF ON
L806
C828
Q804
D801
L808
D802
Q802
L803
L807
Q801
L802
L809
C813
C810
C807
C804
Q854
L851
C108
L801
Q101
C104
C102
1-627-752-
14

RP-63 BOARD (CONDUCTOR SIDE)


E
F
G
H
Q851
Q806
1-627-752-
14
09
1
2
3
4
5
6
7
8

RP-63 BOARD

D102	D-7
D801	B-2
D802	B-2
D803	A-3
IC101	C-8
IC801	B-4
Q101	B-7
Q801	C-1
Q802	C-2
Q803	B-2
Q804	B-2
Q805	A-3
Q806	H-6
Q850	A-5
Q851	H-5
Q852	F-6
Q853	C-6
Q854	B-5

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.

(In addition to this , the necessary note is printed in each block.)

- **For printed wiring boards.**
- ○— : indicated a lead wire mounted on the component side.
- —— : indicated a lead wire mounted on the conductor side.
- ● : Through hole.
- ■ : Parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- ■ : Pattern of the rear side.
- Circled numbers refer to waveforms.

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component side)	Parts on the parts face side seen from the parts face are indicated.

- **For schematic diagrams.**
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minuts side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W unless otherwise noted.
  Chip resistor are 1/10W unless otherwise noted.
  kΩ : 1000Ω , MΩ : 1000kΩ .
- All capacitors are in μF unless otherwise noted. pF: μμF.
  50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊟ : nonflammable resistor.
- ⊟ : fusible resistor.
- ☐ : panel designation.
- △ : internal component.
- ☐ : adjustment for repeair.
- —— : B+ Line.
- - - - : B– Line.
- ⇨ : IN/OUT direction of (+, –) B LINE.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltages are taken with a VOM (Input impedance 10MΩ).
- Voltage variations may be noted due to normal production tolerances.

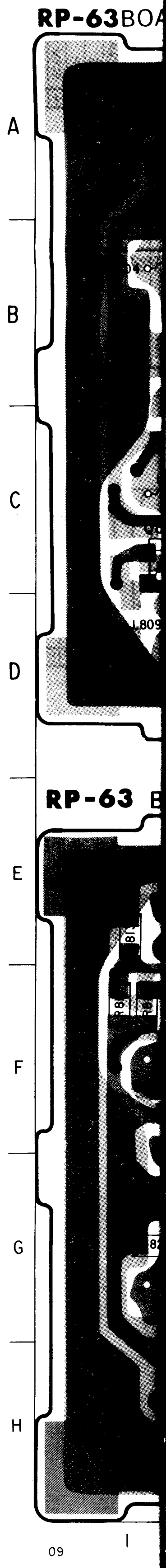
Note: The components identi- fied by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

RP-63 (HEAD

— Ref. No. RP-63 B

D102	8-719-400-
D801	8-719-400-
D802	8-719-400-
D803	8-719-400-



RP-63 BOARD

D102	D-7
D801	B-2
D802	B-2
D803	A-3
IC101	C-8
IC801	B-4
Q101	B-7
Q801	C-1
Q802	C-2
Q803	B-2
Q804	B-2
Q805	A-3
Q806	H-6
Q850	A-5
Q851	H-5
Q852	F-6
Q853	C-6
Q854	B-5

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIR BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this , the necessary note is printe each block.)

- **For printed wiring boards.**
- ○— : indicated a lead wire mounted on the component si
- —— : indicated a lead wire mounted on the conductor sid
- ● : Through hole.
- ■ : Parts mounted on the conductor side.
- ▒ : Pattern from the side which enables seeing.
- ▬ : Pattern of the rear side.
- Circled numbers refer to waveforms.

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen fr the pattern face are indicated.
Parts face side: (Component side)	Parts on the parts face side seen from parts face are indicated.

- **For schematic diagrams.**
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minuts side of tantalum capa because it is damaged by the heat.
- All resistors are in ohms, 1/4W unless otherwise noted.
  Chip resistor are 1/10W unless otherwise noted.
  kΩ : 1000Ω , MΩ : 1000kΩ .
- All capacitors are in μF unless otherwise noted. pF: μμF.
  50V or less are not indicated except for electrolytics tantalums.
- All variable and adjustable resistors have characteristic cur unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.
- ▭ : adjustment for repeair.
- ━ : B+ Line.
- - - - : B– Line.
- ⇨ : IN/OUT direction of (+, –) B LINE.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltages are taken with a VOM (Input impedance 10MΩ).
- Voltage variations may be noted due to normal produ tolerances.

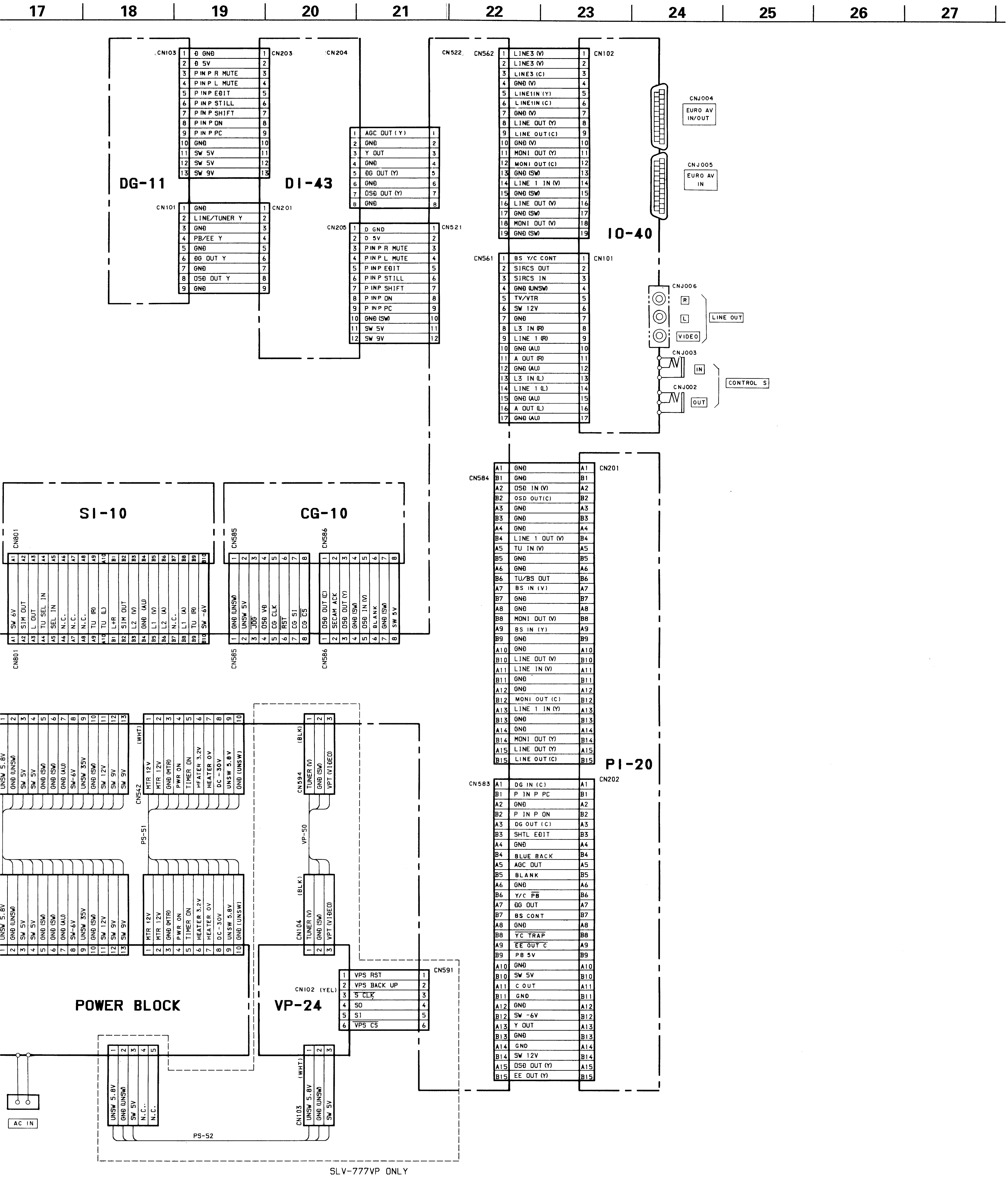
Note: The components identi- fied by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.

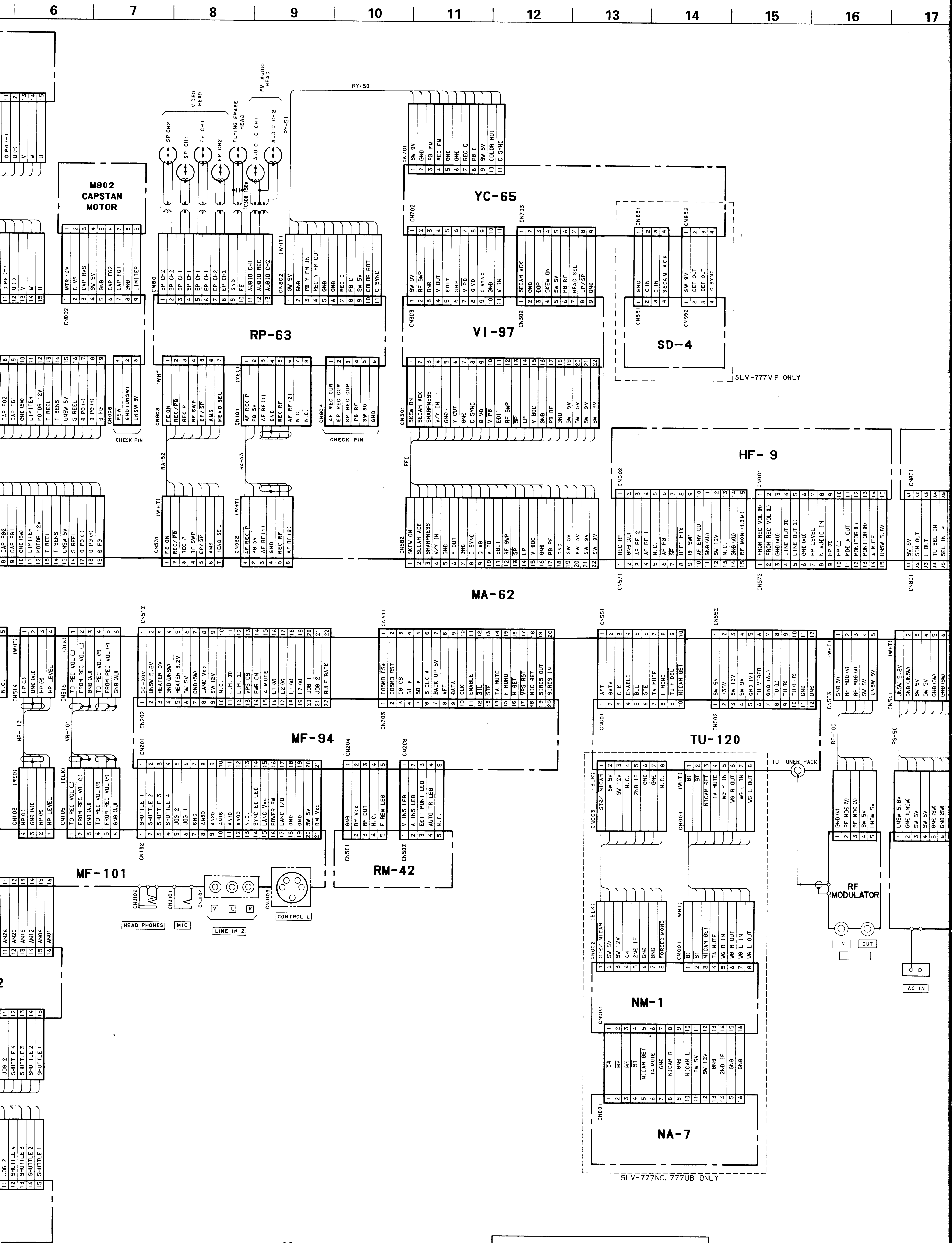
When indicating parts by reference number, please include the board name.

95

95

95


17
18
19
20
21
22
23
24
25
26
27
DG-11
DI-43
CN103
CN203
CN204
1 θ GND
2 θ 5V
3 PINP R MUTE
4 PINP L MUTE
5 PINP EDIT
6 PINP STILL
7 PINP SHIFT
8 PINP ON
9 PINP PC
10 GND
11 SW 5V
12 SW 5V
13 SW 9V
CN101
CN201
1 GND
2 LINE/TUNER Y
3 GND
4 PB/EE Y
5 GND
6 DG OUT Y
7 GND
8 OSD OUT Y
9 GND
1 AGC OUT (Y)
2 GND
3 Y OUT
4 GND
5 DG OUT (Y)
6 GND
7 OSD OUT (Y)
8 GND
CN205
CN521
1 D GND
2 D 5V
3 PINP R MUTE
4 PINP L MUTE
5 PINP EDIT
6 PINP STILL
7 PINP SHIFT
8 PINP ON
9 PINP PC
10 GND (SW)
11 SW 5V
12 SW 9V
CN522
CN562
CN102
1 LINE3 (V)
2 LINE3 (V)
3 LINE3 (C)
4 GND (V)
5 LINE1IN (Y)
6 LINE1IN (C)
7 GND (V)
8 LINE OUT (Y)
9 LINE OUT (C)
10 GND (V)
11 MONI OUT (Y)
12 MONI OUT (C)
13 GND (SW)
14 LINE 1 IN (V)
15 GND (SW)
16 LINE OUT (V)
17 GND (SW)
18 MONI OUT (V)
19 GND (SW)
IO-40
CNJ004
EURO AV IN/OUT
CNJ005
EURO AV IN
CN561
CN101
1 BS Y/C CONT
2 SIRCS OUT
3 SIRCS IN
4 GND (UNSW)
5 TV/VTR
6 SW 12V
7 GND
8 L3 IN (R)
9 LINE 1 (R)
10 GND (AU)
11 A OUT (R)
12 GND (AU)
13 L3 IN (L)
14 LINE 1 (L)
15 GND (AU)
16 A OUT (L)
17 GND (AU)
CNJ006
R
L
VIDEO
LINE OUT
CNJ003
IN
CNJ002
OUT
CONTROL S
CN584
CN201
A1 GND
B1 GND
A2 OSD IN (V)
B2 OSD OUT (C)
A3 GND
B3 GND
A4 GND
B4 LINE 1 OUT (V)
A5 TU IN (V)
B5 GND
A6 GND
B6 TU/BS OUT
A7 BS IN (V)
B7 GND
A8 GND
B8 MONI OUT (V)
A9 BS IN (Y)
B9 GND
A10 GND
B10 LINE OUT (V)
A11 LINE IN (V)
B11 GND
A12 GND
B12 MONI OUT (C)
A13 LINE 1 IN (Y)
B13 GND
A14 GND
B14 MONI OUT (Y)
A15 LINE OUT (Y)
B15 LINE OUT (C)
PI-20
CN583
CN202
A1 DG IN (C)
B1 P IN P PC
A2 GND
B2 P IN P ON
A3 DG OUT (C)
B3 SHTL EDIT
A4 GND
B4 BLUE BACK
A5 AGC OUT
B5 BLANK
A6 GND
B6 Y/C PB
A7 DG OUT
B7 BS CONT
A8 GND
B8 YC TRAP
A9 EE OUT C
B9 PB 5V
A10 GND
B10 SW 5V
A11 C OUT
B11 GND
A12 GND
B12 SW -6V
A13 Y OUT
B13 GND
A14 GND
B14 SW 12V
A15 OSD OUT (Y)
B15 EE OUT (Y)
SI-10
CN801
SW 6V
SIM OUT
L OUT
TU SEL IN
SEL IN
N.C.
N.C.
N.C.
TU (R)
TU (L)
L+R
SIM OUT
L2 (V)
GND (AU)
L1 (V)
L2 (A)
N.C.
L1 (A)
TU (R)
SW -6V
CG-10
CN585
GND (UNSW)
UNSW 5V
JOG
OSD VD
CG CLK
RST
CG SI
CG CS
CN586
OSD OUT (C)
SECAM ACK
OSD OUT (Y)
GND (SW)
OSD IN (V)
BLANK
GND (SW)
SW 5V
UNSW 5.8V
GND (UNSW)
SW 5V
SW 5V
GND (SW)
GND (SW)
GND (AU)
SW-6V
UNSW 35V
GND (SW)
SW 12V
SW 9V
SW 9V
CN542
(WHT)
PS-51
MTR 12V
MTR 12V
GND (MTR)
PWR ON
TIMER ON
HEATER 3.2V
HEATER 0V
DC -30V
UNSW 5.8V
GND (UNSW)
CN594
(BLK)
VP-50
TUNER (V)
GND (SW)
VPT (VIDEO)
CN104
(BLK)
POWER BLOCK
VP-24
CN102 (YEL)
CN591
1 VPS RST
2 VPS BACK UP
3 S CLK
4 SO
5 SI
6 VPS CS
UNSW 5.8V
GND (UNSW)
SW 5V
N.C.
N.C.
PS-52
CN103
(WHT)
UNSW 5.8V
GND (UNSW)
SW 5V
AC IN
SLV-777VP ONLY

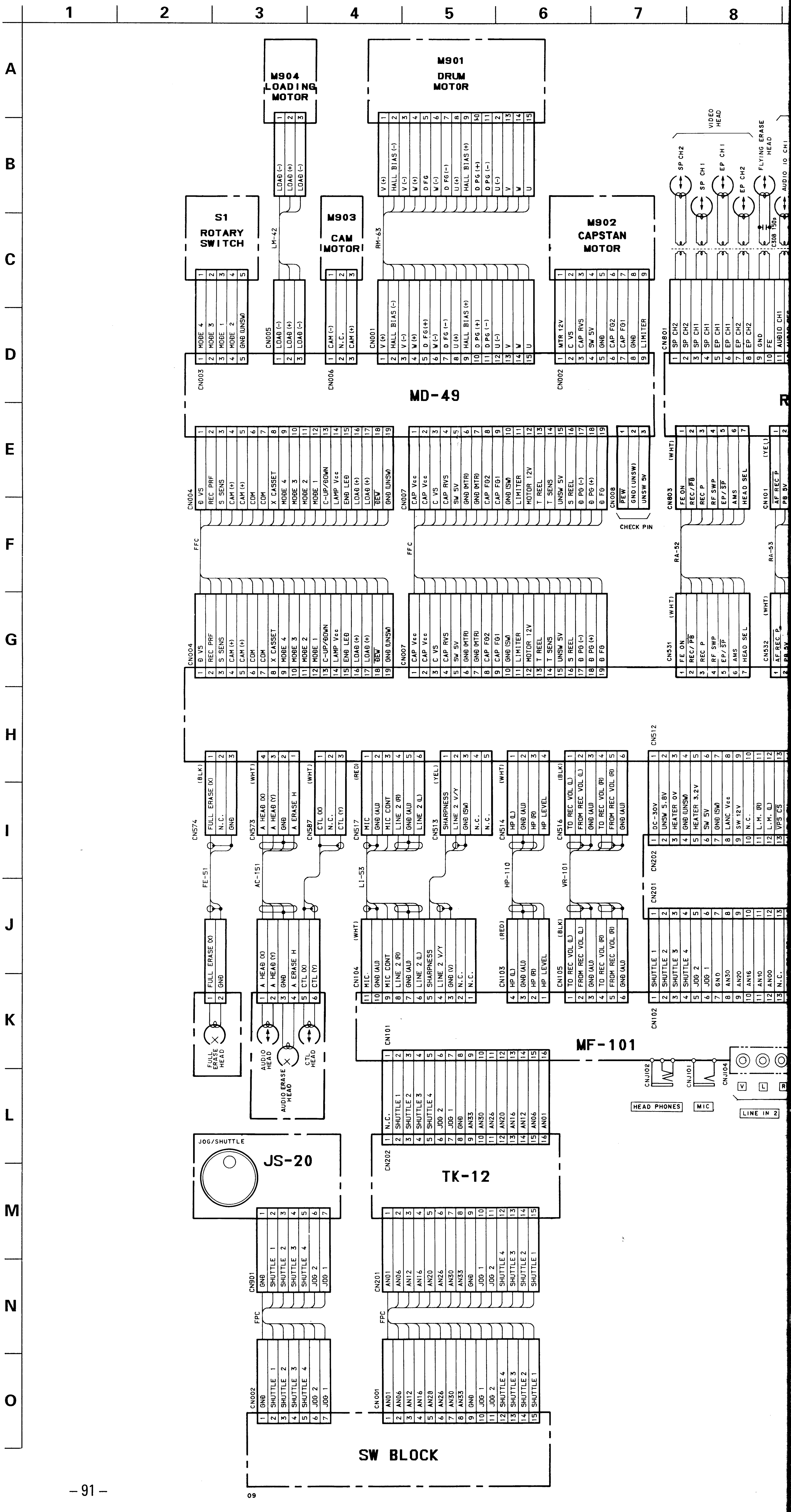

6
7
8
9
10
11
12
13
14
15
16
17
M902
CAPSTAN
MOTOR
VIDEO HEAD
FLYING ERASE HEAD
FM AUDIO HEAD
SP CH2
SP CH1
EP CH1
EP CH2
AUDIO 10 CH1
AUDIO CH2
RY-50
RY-51
YC-65
RP-63
VI-97
SD-4
SLV-777VP ONLY
CHECK PIN
RA-52
RA-53
FFC
HF- 9
MA-62
MF-94
TU-120
TO TUNER PACK
MF-101
RM-42
HP-110
VR-101
RF-100
PS-50
RF
MODULATOR
IN
OUT
AC IN
HEAD PHONES
MIC
V
L
R
LINE IN 2
CONTROL L
NM-1
NA-7
SLV-777NC, 777UB ONLY

FRAME FRAME

SECTION 4

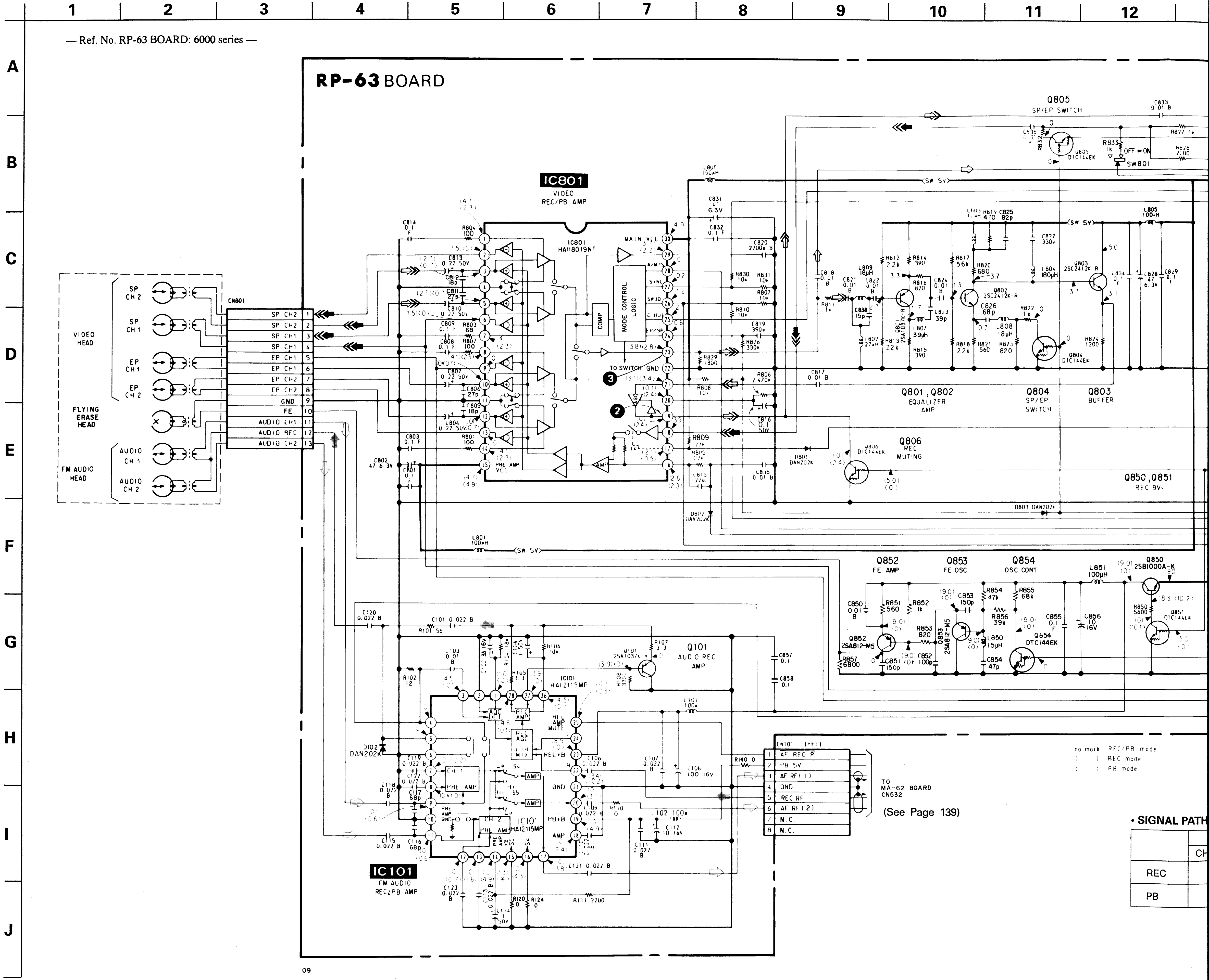
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

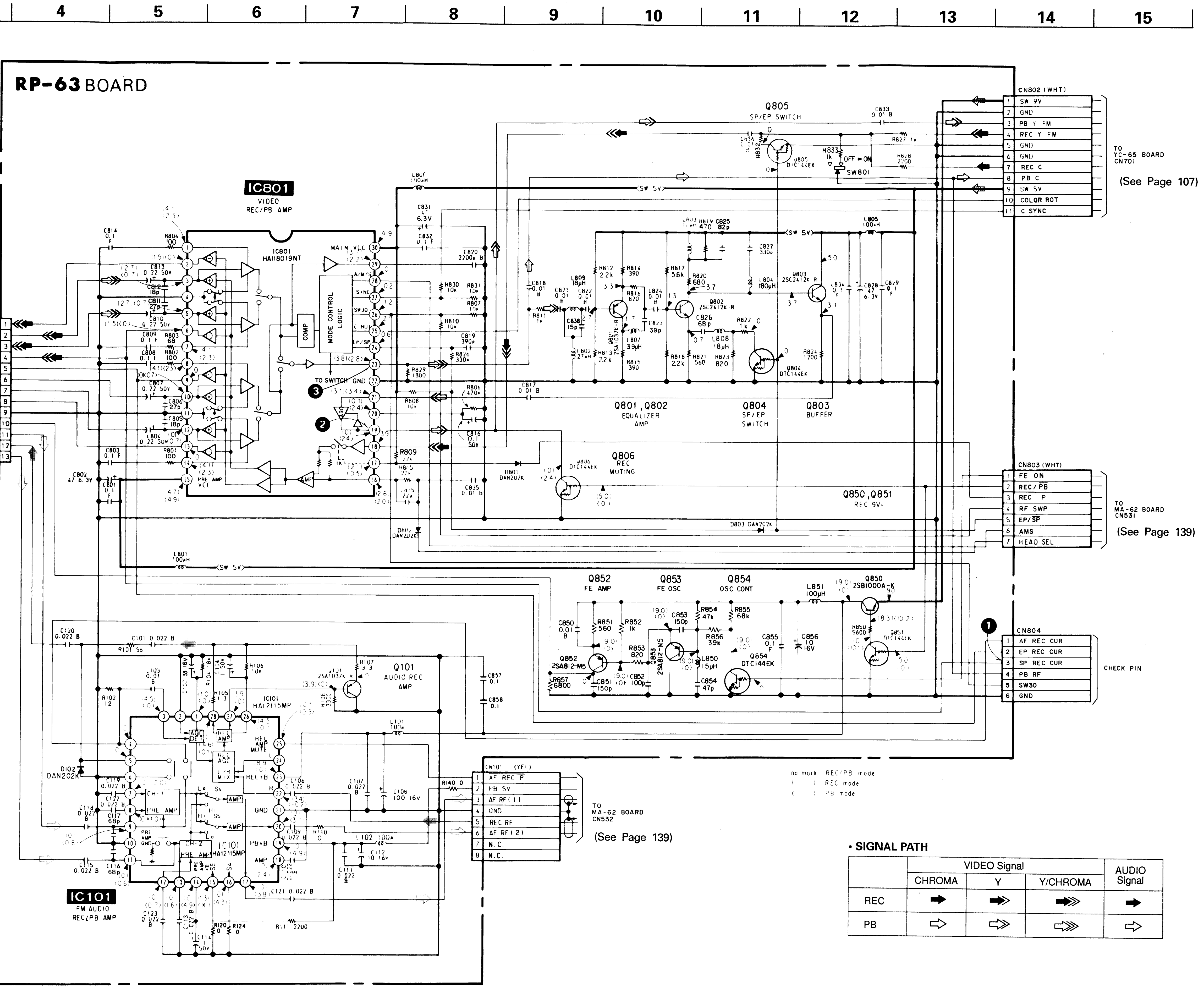
4-1. FRAME SCHEMATIC DIAGRAM


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
M904 LOADING MOTOR
M901 DRUM MOTOR
S1 ROTARY SWITCH
M903 CAM MOTOR
M902 CAPSTAN MOTOR
VIDEO HEAD
FLYING ERASE HEAD
SP CH2
SP CH1
EP CH1
EP CH2
LM-42
RM-63
CN003
CN005
CN006
CN001
CN002
CN801
MD-49
CN004
CN007
CN008
CHECK PIN
CN803
CN101
FFC
RA-52
RA-53
CN531
CN532
CN574
CN573
CN587
CN517
CN513
CN514
CN516
CN512
CN202
CN201
FE-51
AC-151
LI-53
HP-110
VR-101
CN104
CN103
CN105
CN102
CN101
FULL ERASE HEAD
AUDIO HEAD
AUDIO ERASE HEAD
CTL HEAD
MF-101
CNJ102
CNJ101
CNJ104
HEAD PHONES
MIC
LINE IN 2
JOG/SHUTTLE
JS-20
TK-12
CN202
CN901
CN201
FPC
CN002
CN001
SW BLOCK
09

RP-63 (HEAD AMP) SCHEMATIC DIAGRAM

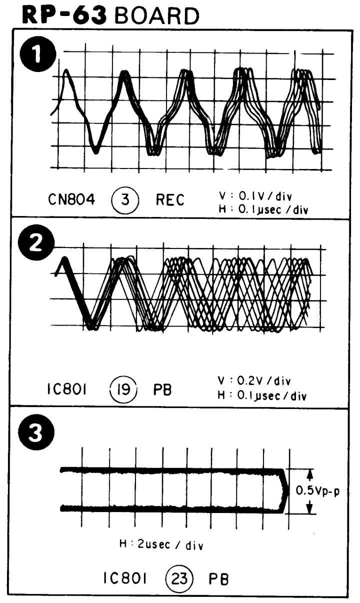
— Ref. No. RP-63 BOARD: 6000 series —


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
RP-63 BOARD
VIDEO HEAD
SP CH 2
SP CH 1
EP CH 1
EP CH 2
FLYING ERASE HEAD
FM AUDIO HEAD
AUDIO CH 1
AUDIO CH 2
CN801
SP CH2
SP CH2
SP CH1
SP CH1
EP CH1
EP CH1
EP CH2
EP CH2
GND
FE
AUDIO CH1
AUDIO REC
AUDIO CH2
IC801
VIDEO REC/PB AMP
IC801 HA118019NT
MAIN VCC
COMP
MODE CONTROL LOGIC
TO SWITCH GND
PRE AMP VCC
AMP
Q805 SP/EP SWITCH
SW801
OFF ON
Q801, Q802 EQUALIZER AMP
Q804 SP/EP SWITCH
Q803 BUFFER
Q806 REC MUTING
Q850, Q851 REC 9V
Q852 FE AMP
Q853 FE OSC
Q854 OSC CONT
Q101 AUDIO REC AMP
IC101
FM AUDIO REC/PB AMP
IC101 HA12115MP
REC AMP
REC AGC
REC AMP MUTE
PB AMP
D102 DAN202K
D801 DAN202K
D803 DAN202K
CN101 (YEL)
AF REC P
PB 5V
AF RF (1)
GND
REC RF
AF RF (2)
N.C.
N.C.
TO MA-62 BOARD CN532
(See Page 139)
no mark REC/PB mode
( ) REC mode
( ) PB mode
• SIGNAL PATH
REC
PB
09


4
5
6
7
8
9
10
11
12
13
14
15
RP-63 BOARD
IC801
VIDEO REC/PB AMP
IC801 HA118019NT
MAIN VCC
MODE CONTROL LOGIC
COMP
TO SWITCH GND
PRE AMP VCC
Q805 SP/EP SWITCH
SW801
OFF ⇒ ON
Q801, Q802 EQUALIZER AMP
Q804 SP/EP SWITCH
Q803 BUFFER
Q806 REC MUTING
Q850, Q851 REC 9V
Q852 FE AMP
Q853 FE OSC
Q854 OSC CONT
Q850 2SB1000A-K
Q851 DTC144EK
Q101 AUDIO REC AMP
IC101 HA12115MP
IC101 FM AUDIO REC/PB AMP
(SW 5V)
CN802 (WHT)
1 SW 9V
2 GND
3 PB Y FM
4 REC Y FM
5 GND
6 GND
7 REC C
8 PB C
9 SW 5V
10 COLOR ROT
11 C SYNC
TO YC-65 BOARD CN701
(See Page 107)
CN803 (WHT)
1 FE ON
2 REC/PB
3 REC P
4 RF SWP
5 EP/SP
6 AMS
7 HEAD SEL
TO MA-62 BOARD CN531
(See Page 139)
CN804
1 AF REC CUR
2 EP REC CUR
3 SP REC CUR
4 PB RF
5 SW30
6 GND
CHECK PIN
CN101 (YEL)
1 AF REC P
2 PB 5V
3 AF RF (1)
4 GND
5 REC RF
6 AF RF (2)
7 N.C.
8 N.C.
TO MA-62 BOARD CN532
(See Page 139)

no mark REC/PB mode
( ) REC mode
〈 〉 PB mode

RP-63 BOARD



• SIGNAL PATH

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC	➡	➡➡	➡➡➡	➡
PB	⇨	⇨⇨	⇨⇨⇨	⇨

YC-65 (VIDEO), SD-4 (SECAM DETECTOR), VI-97 (RELAY) PRINTED WIRING BOARDS

— Ref. No. YC-65 BOARD: 4000 series, VI-97 BOARD: 6000 series, SD-4 BOARD: 9000 series —

DIODE

D705	8-719-104-34	DIODE 1S2835-T1
D801	8-719-400-18	DIODE DAN202K-T-146
D803	8-719-400-18	DIODE DAN202K-T-146

IC

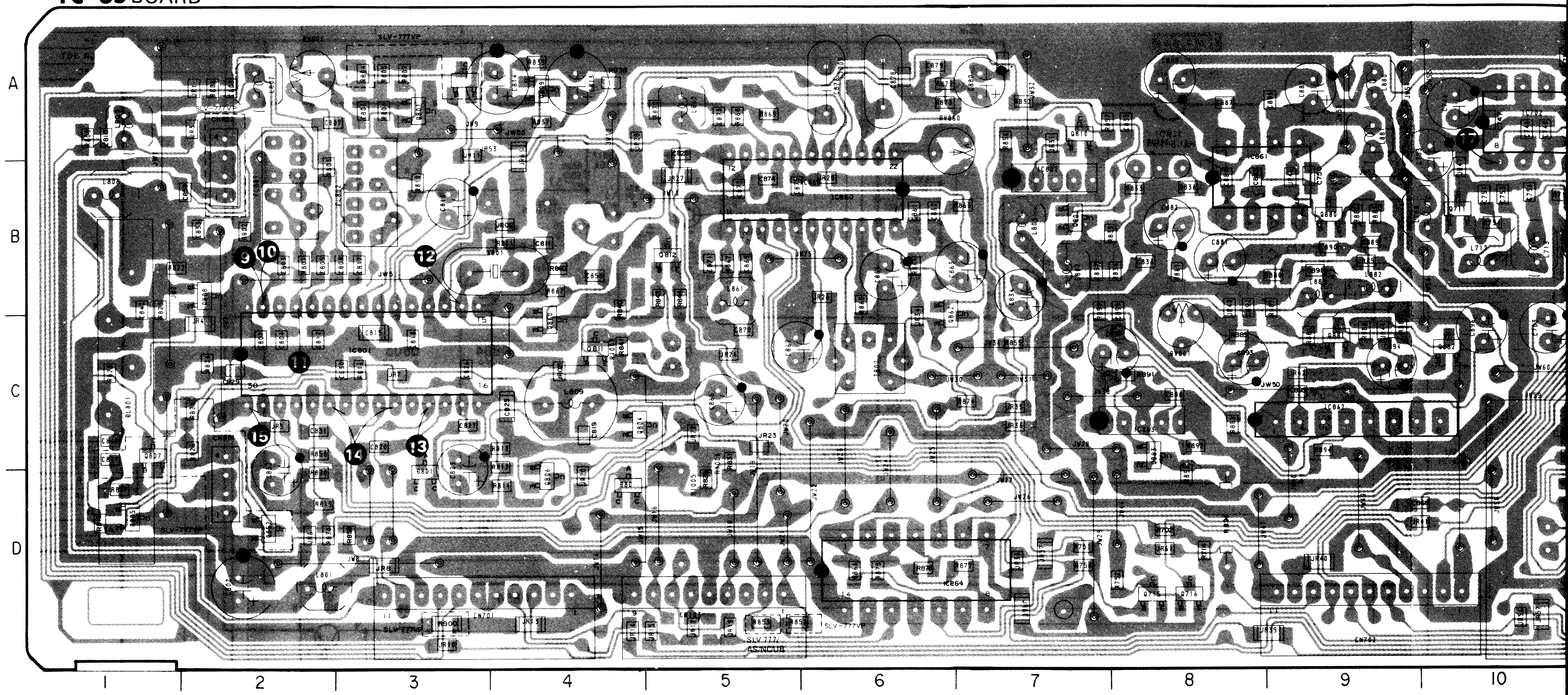
IC701	8-759-420-07	IC AN3231K
IC702	8-752-321-89	IC CXL5003P
IC801	8-759-320-78	IC HA118016NT
IC802	8-759-822-05	IC LA7213
IC860	8-759-420-53	IC AN3592K
IC861	8-759-991-54	IC MSM6989RS
IC862	8-752-006-12	IC CX20061
IC863	8-759-822-05	IC LA7213
IC864	8-759-000-49	IC MC14066BCP

TRANSISTOR

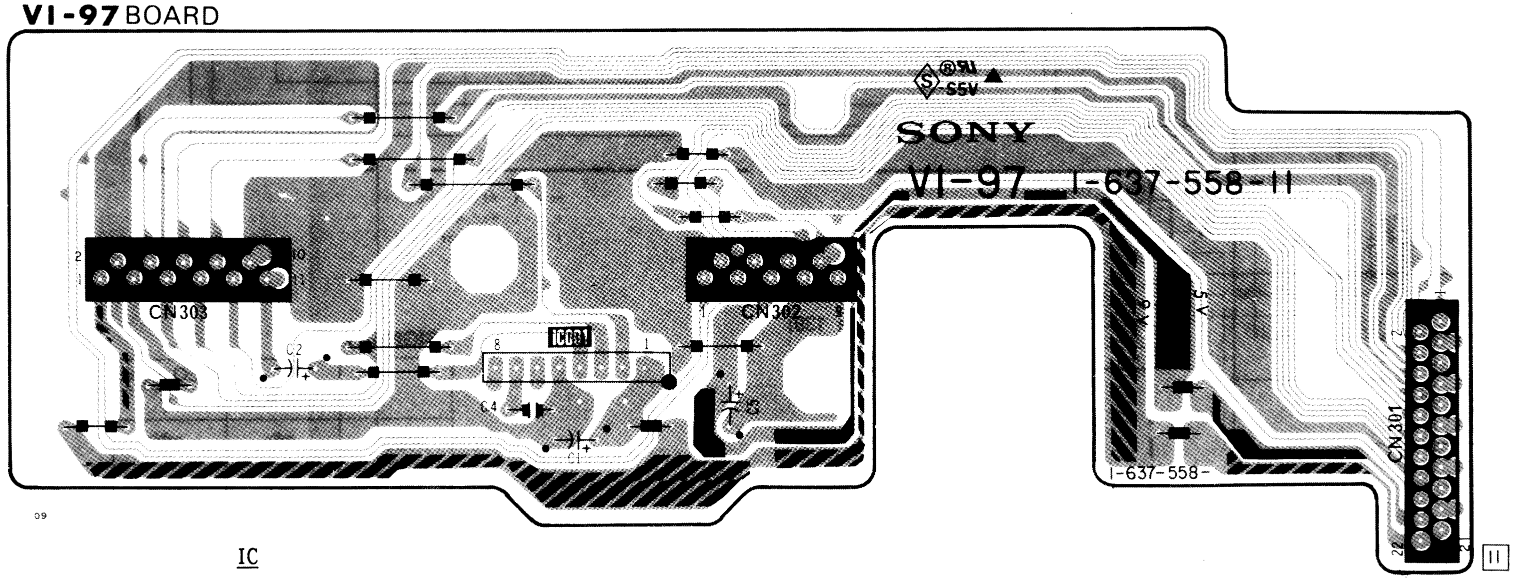
Q702	8-729-216-22	TRANSISTOR 2SA1162
Q703	8-729-901-47	TRANSISTOR DTA143EK
Q704	8-729-901-01	TRANSISTOR DTC144EK
Q705	8-729-100-66	TRANSISTOR 2SC1623
Q706	8-729-216-22	TRANSISTOR 2SA1162
Q707	8-729-100-66	TRANSISTOR 2SC1623
Q709	8-729-100-66	TRANSISTOR 2SC1623
Q711	8-729-216-22	TRANSISTOR 2SA1162
Q715	8-729-901-01	TRANSISTOR DTC144EK
Q716	8-729-901-01	TRANSISTOR DTC144EK
Q717	8-729-100-66	TRANSISTOR 2SC1623
Q719	8-729-216-22	TRANSISTOR 2SA1162
Q721	8-729-100-66	TRANSISTOR 2SC1623
Q722	8-729-901-01	TRANSISTOR DTC144EK
Q723	8-729-901-01	TRANSISTOR DTC144EK
Q801	8-729-100-66	TRANSISTOR 2SC1623
Q802	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)
Q803	8-729-100-66	TRANSISTOR 2SC1623
Q804	8-729-900-53	TRANSISTOR DTC114EK
Q805	8-729-216-22	TRANSISTOR 2SA1162
Q806	8-729-901-01	TRANSISTOR DTC144EK
Q807	8-729-100-66	TRANSISTOR 2SC1623 (SLV-777VP)
Q808	8-729-100-66	TRANSISTOR 2SC1623
Q809	8-729-100-66	TRANSISTOR 2SC1623
Q810	8-729-901-04	TRANSISTOR DTA114EK-T146
Q811	8-729-216-22	TRANSISTOR 2SA1162
Q812	8-729-100-66	TRANSISTOR 2SC1623
Q852	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)
Q860	8-729-809-77	TRANSISTOR 2SC3142-J4
Q862	8-729-901-01	TRANSISTOR DTC144EK
Q880	8-729-100-66	TRANSISTOR 2SC1623
Q881	8-729-100-66	TRANSISTOR 2SC1623
Q882	8-729-216-22	TRANSISTOR 2SA1162
Q883	8-729-100-66	TRANSISTOR 2SC1623

YC-65	BOARD
D705	D-11
D801	D-3
D803	D-4
IC701	C-13
IC702	A-10
IC801	C-3
IC802	B-7
IC860	B-6
IC861	A-8
IC862	C-9
IC863	C-8
IC864	D-6
Q702	B-11
Q703	D-11
Q704	D-12
Q705	A-11
Q706	A-11
Q707	D-14
Q709	D-13
Q711	B-10
Q715	D-8
Q716	D-8
Q717	D-11
Q719	D-11
Q721	D-12
Q722	D-11
Q723	D-12
Q801	A-3
Q802	A-3
Q803	B-2
Q804	C-4
Q805	D-1
Q806	D-4
Q807	C-1
Q808	B-2
Q809	A-4
Q810	A-7
Q811	C-4
Q812	B-5
Q852	D-2
Q860	B-4
Q862	B-6
Q880	B-9
Q881	C-9
Q882	C-10
Q883	C-8

YC-65 BOARD



VI-97 BOARD

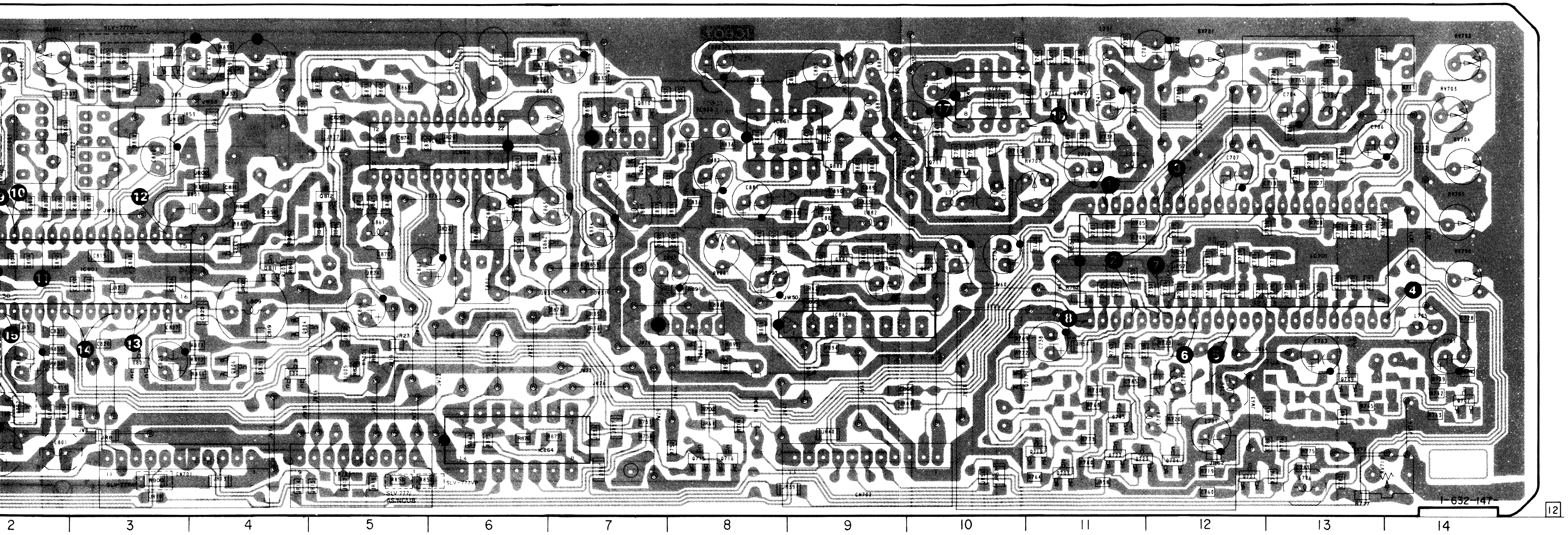


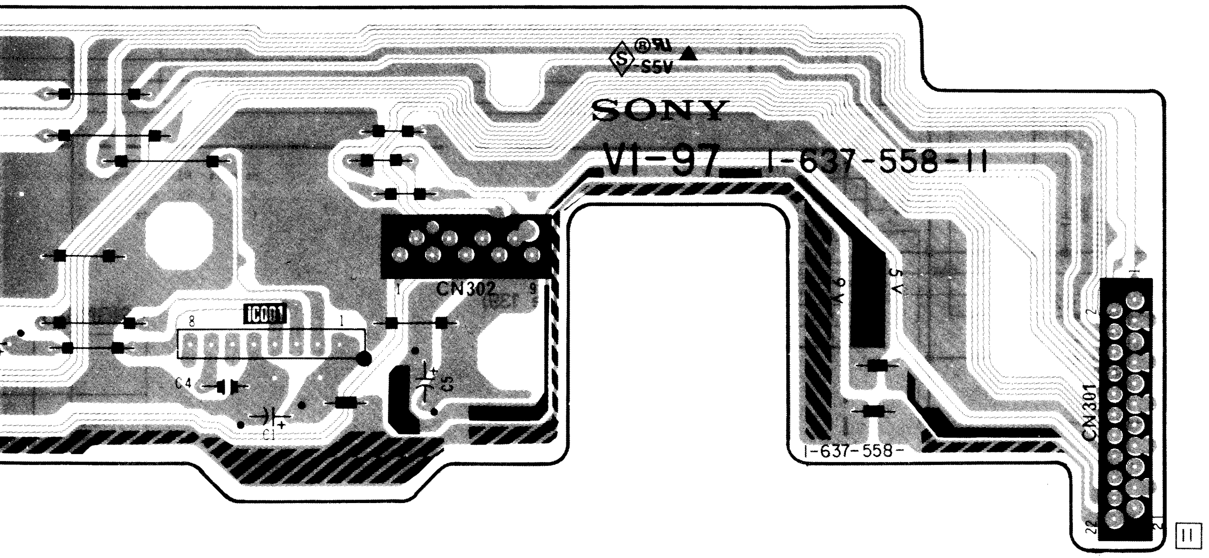
IC

IC001	8-759-800-81	IC LA7016

CAM DETECTOR), VI-97 (RELAY) PRINTED WIRING BOARDS

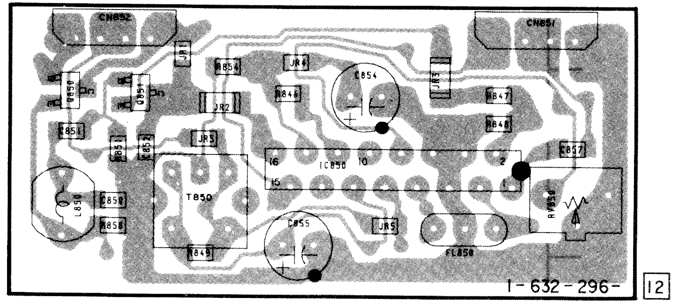
eries, VI-97 BOARD: 6000 series, SD-4 BOARD: 9000 series —


1-632-147-
12
2
3
4
5
6
7
8
9
10
11
12
13
14


SONY
VI-97
1-637-558-11
CN302
IC001
CN301
5V
1-637-558-
11

LA7016

SD-4 BOARD


CN852
CN851
IC850
T850
1-632-296-
12

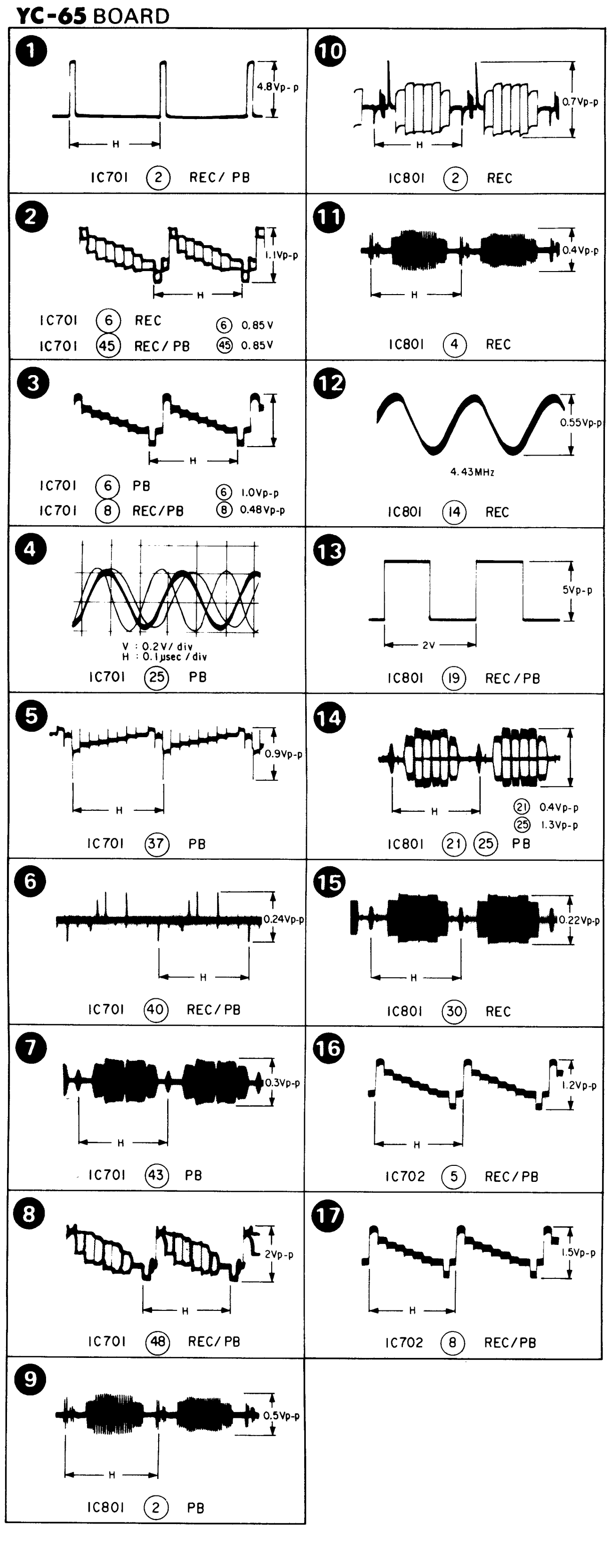
IC

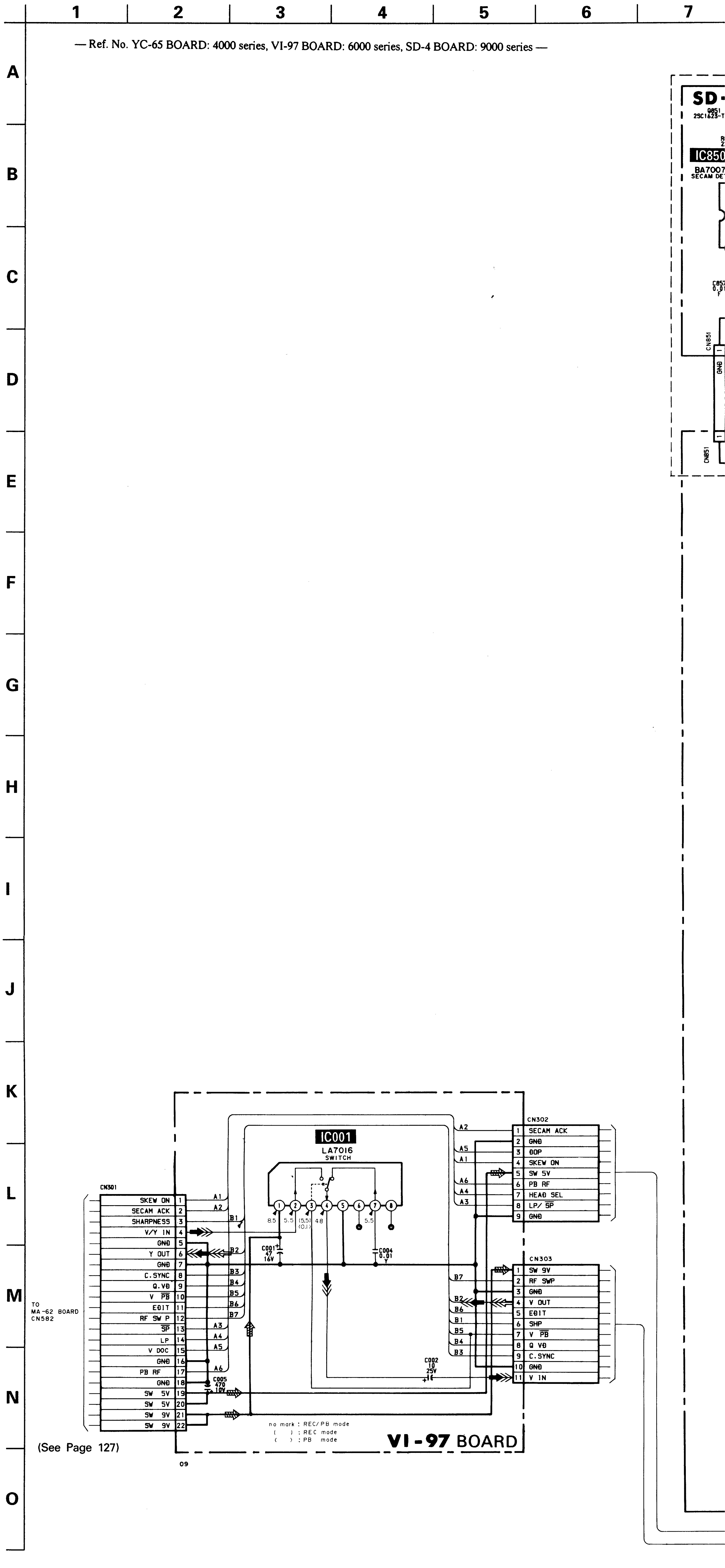
IC850	8-759-904-95	IC BA7077

TRANSISTOR

Q850	8-729-102-62	TRANSISTOR 2SC1623
Q850	8-729-901-81	TRANSISTOR 2SC2412K
Q851	8-729-102-62	TRANSISTOR 2SC1623
Q851	8-729-901-81	TRANSISTOR 2SC2412K

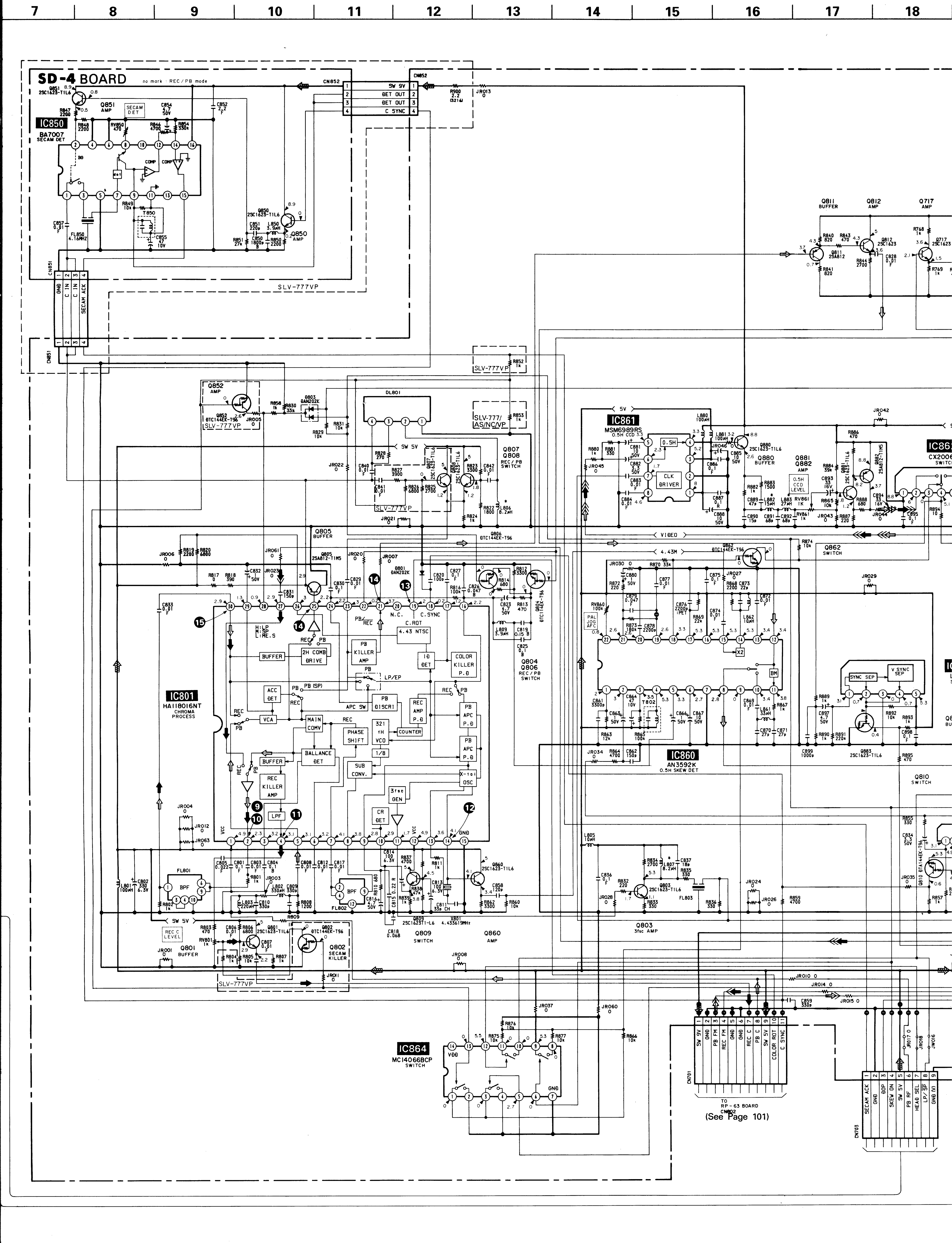
YC-65 (VIDEO), SD-4 (SECAM DETECTOR), VI-97 (RELAY) SCHEMATIC DIAGRAMS

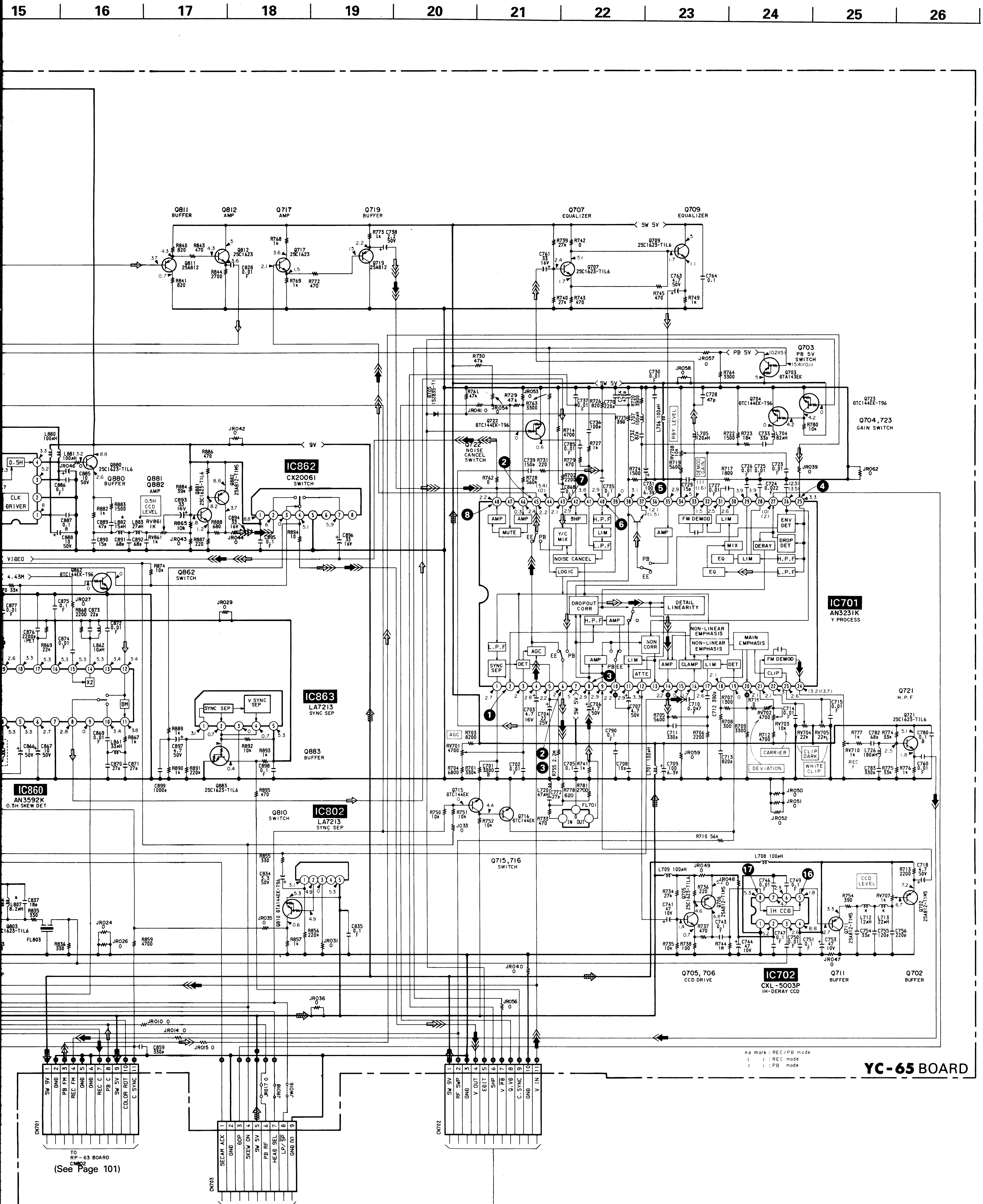



— Ref. No. YC-65 BOARD: 4000 series, VI-97 BOARD: 6000 series, SD-4 BOARD: 9000 series —

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
SD-
Q851
2SC1623-T
IC850
BA7007
SECAM DE
C857
0.01
F
CN851
GND
1
CN851
1
IC001
LA7016
SWITCH
8.5
5.5
(5.5)
(0.1)
4.8
5.5
C001
47
16V
C004
0.01
Y
C002
10
25V
C005
470
10V
CN301
SKEW ON 1
SECAM ACK 2
SHARPNESS 3
V/Y IN 4
GND 5
Y OUT 6
GND 7
C.SYNC 8
Q.VD 9
V PB 10
EDIT 11
RF SW P 12
SP 13
LP 14
V DOC 15
GND 16
PB RF 17
GND 18
SW 5V 19
SW 5V 20
SW 9V 21
SW 9V 22
A1
A2
A3
A4
A5
A6
B1
B2
B3
B4
B5
B6
B7
TO
MA-62 BOARD
CN582
CN302
1 SECAM ACK
2 GND
3 DOP
4 SKEW ON
5 SW 5V
6 PB RF
7 HEAD SEL
8 LP/ SP
9 GND
CN303
1 SW 9V
2 RF SWP
3 GND
4 V OUT
5 EDIT
6 SHP
7 V PB
8 Q VD
9 C.SYNC
10 GND
11 V IN
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
VI-97 BOARD
09

(See Page 127)


7
8
9
10
11
12
13
14
15
16
17
18
SD-4 BOARD
no mark : REC/PB mode
IC850
BA7007
SECAM DET
Q851
AMP
SECAM DET
Q850
AMP
FL850
4.16MHZ
T850
CN852
SW 9V
DET OUT
DET OUT
C SYNC
CN851
GND
C IN
C IN
SECAM ACK
SLV-777VP
Q852
AMP
DL801
Q807
Q808
REC/PB SWITCH
SLV-777/AS/NC/VP
Q805
BUFFER
D801
DA202K
D803
DAN202K
IC801
HA118016NT
CHROMA PROCESS
BUFFER
2H COMB DRIVE
PB KILLER AMP
ID DET
COLOR KILLER P.D
4.43 NTSC
C.ROT
C.SYNC
N.C.
LP/EP
ACC DET
PB DISCRI
APC SW
VCA
MAIN CONV
REC AMP P.D
PB APC P.D
PHASE SHIFT
321 fH VCO
COUNTER
1/8
BALLANCE DET
BUFFER
REC KILLER AMP
SUB CONV.
X-tal OSC
3fsc GEN
CR DET
LPF
VCC
GND
H:LP
M:SP
L:RE.S
Q804
Q806
REC/PB SWITCH
FL801
BPF
FL802
BPF
Q809
SWITCH
Q860
AMP
X801
4.433619MHz
Q801
BUFFER
REC C LEVEL
Q802
SECAM KILLER
SW 5V
IC864
MC14066BCP
SWITCH
VDD
GND
IC861
MSM6989RS
0.5H CCD
CLK DRIVER
0.5H
Q880
BUFFER
Q881
Q882
AMP
0.5H CCD LEVEL
VIDEO
4.43M
Q862
SWITCH
IC860
AN3592K
0.5H SKEW DET
PAL JOG AFC
X2
BM
T802
FL803
Q803
3fsc AMP
SYNC SEP
V SYNC SEP
Q883
Q810
SWITCH
Q811
BUFFER
Q812
AMP
Q717
AMP
IC86
CX2006
SWITC
CN701
SW 9V
GND
PB FM
REC FM
GND
REC C
PB C
SW 5V
COLOR ROT
C SYNC
TO RP-63 BOARD CN902
(See Page 101)
CN703
SECAM ACK
GND
DOP
SKEW ON
SW 5V
PB RF
HEAD SEL
LP/SP
GND (V)

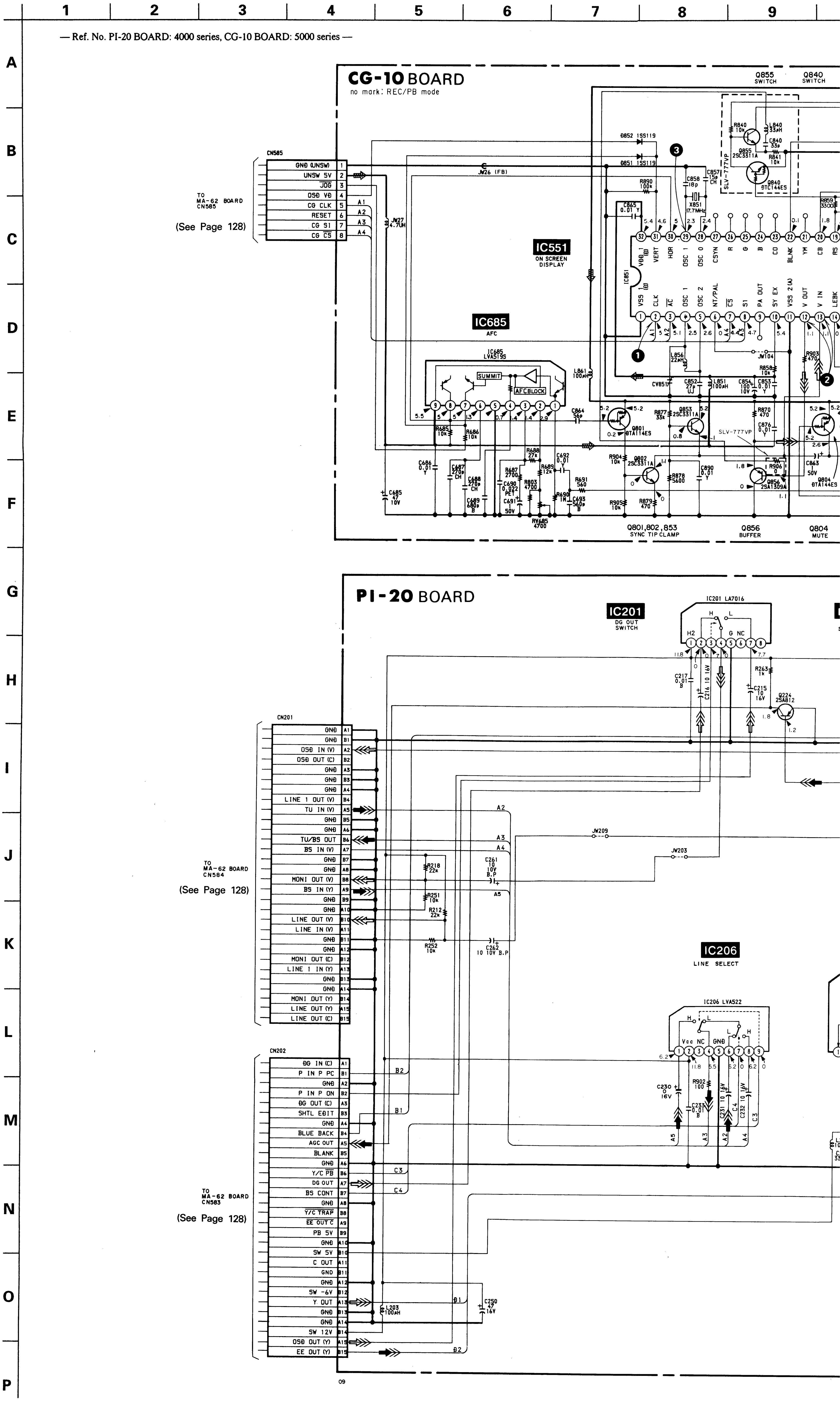

15
16
17
18
19
20
21
22
23
24
25
26
IC862
CX20061
SWITCH
IC863
LA7213
SYNC SEP
IC860
AN3592K
0.5H SKEW DET
IC802
LA7213
SYNC SEP
IC701
AN3231K
Y PROCESS
IC702
CXL-5003P
1H-DERAY CCD
Q811 BUFFER
Q812 AMP
Q717 AMP
Q719 BUFFER
Q707 EQUALIZER
Q709 EQUALIZER
Q703 PB 5V SWITCH
Q704,723 GAIN SWITCH
Q880 BUFFER
Q881 Q882 AMP
Q862 SWITCH
Q883 BUFFER
Q810 SWITCH
Q722 NOISE CANCEL SWITCH
Q715,716 SWITCH
Q721 H.P.F
Q705, 706 CCD DRIVE
Q711 BUFFER
Q702 BUFFER
CLK DRIVER
VIDEO
SW 5V
PB 5V
9V
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
YC-65 BOARD
CN701
TO RP-63 BOARD CN802
(See Page 101)
CN703
CN702

• Signal path

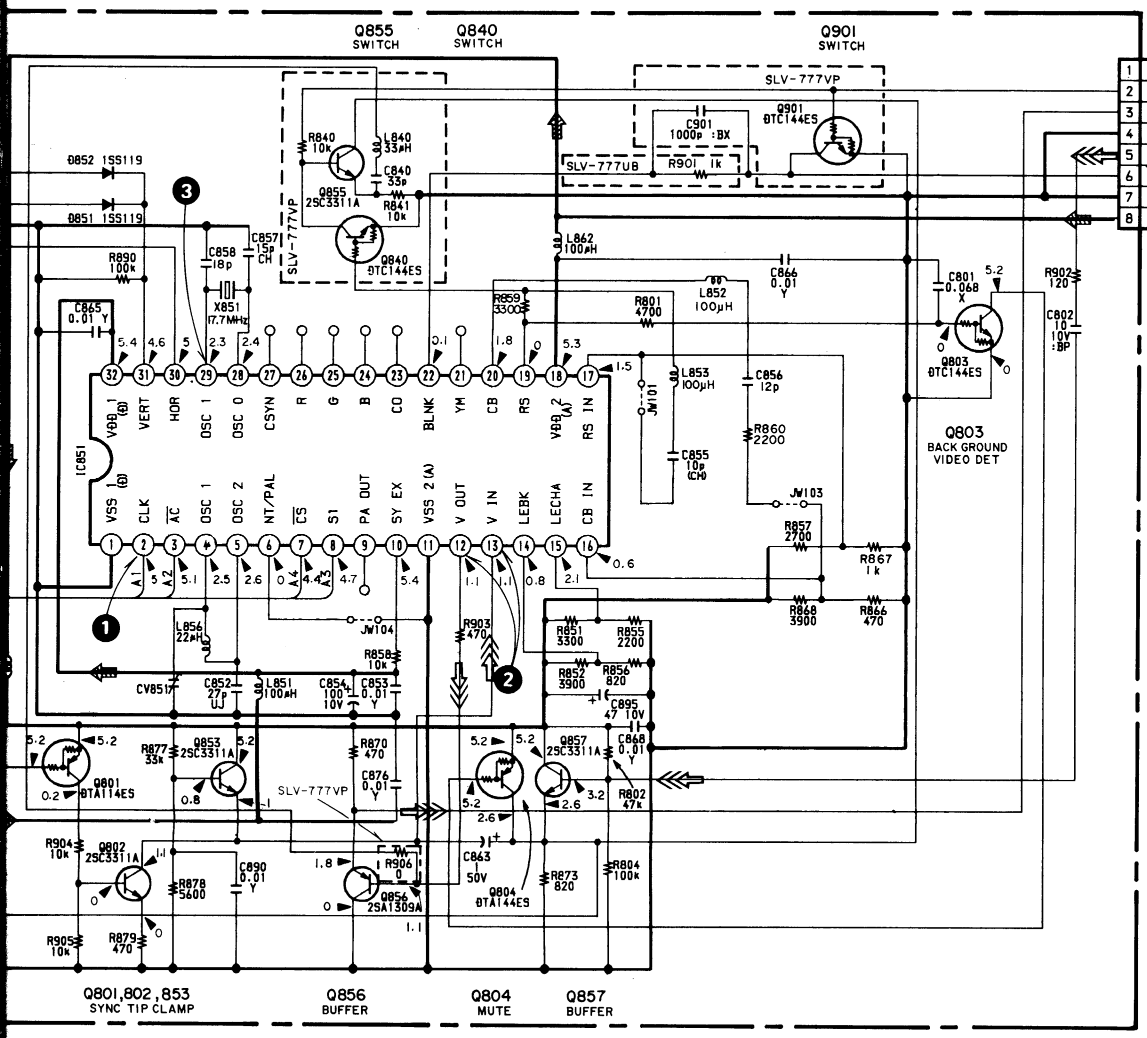
	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC	➡	➡➡	➡➡➡	
PB	⇨	⇨⇨	⇨⇨⇨	

PI-20 (VIDEO SIGNAL SELECTOR), CG-10 (ON SCREEN DISPLAY CONTROLLER) SCHEMATIC DIAGRAMS

— Ref. No. PI-20 BOARD: 4000 series, CG-10 BOARD: 5000 series —

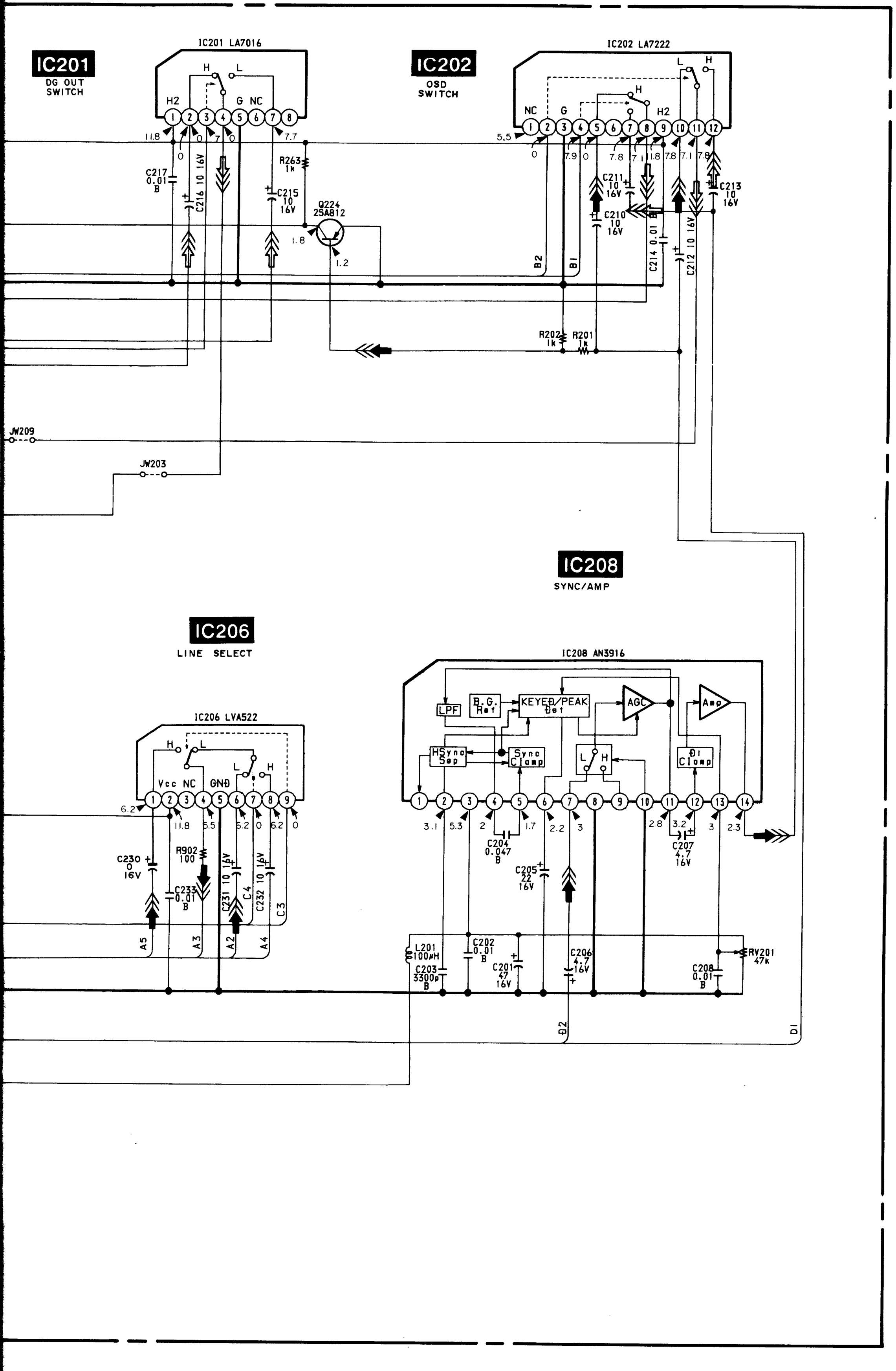


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
CG-10 BOARD
no mark: REC/PB mode
CN585
GND (UNSW) 1
UNSW 5V 2
JOG 3
OSD VD 4
CG CLK 5
RESET 6
CG SI 7
CG CS 8
A1
A2
A3
A4
TO MA-62 BOARD CN585
(See Page 128)
JW27 4.7UH
JW26 (FB)
IC551
ON SCREEN DISPLAY
VDD 1 (D)
VERT
HOR
OSC 1
OSC 0
CSYN
R
G
B
CO
BLNK
YM
CB
VSS 1 (D)
CLK
AC
OSC 1
OSC 2
NT/PAL
CS
SI
PA OUT
SY EX
VSS 2 (A)
V OUT
V IN
IC685
AFC
IC685 LVA519S
SUMMIT
AFC BLOCK
D852 1SS119
D851 1SS119
R890 100k
C858 18p
X851 17.7MHz
C857 15p CH
C865 0.01 Y
L856 22μH
L861 100μH
CV851
C852 27p UJ
L851 100μH
C854 100 10V
C853 0.01 Y
JW104
R858 10k
R903 470
R685 10k
R686 10k
C686 0.01 Y
C687 270p CH
C688 270p CH
C689 680p B
C690 0.022 PET
C691 1 50V
R687 2700
R688 27k
R689 12k
R803 4700
RV685 4700
R690 1M
C692 0.01 Y
R691 560
C693 560p B
C685 47 10V
C864 56p
Q801 DTA114ES
R877 33k
Q853 2SC3311A
R870 470
C876 0.01 Y
SLV-777VP
R904 10k
Q802 2SC3311A
R878 5600
C890 0.01 Y
R906 0
Q856 2SA1309A
C863 1 50V
Q804 DTA144ES
R905 10k
R879 470
Q801,802,853 SYNC TIP CLAMP
Q856 BUFFER
Q804 MUTE
Q855 SWITCH
Q840 SWITCH
R840 10k
L840 33μH
C840 33p
Q855 2SC3311A
R841 10k
Q840 DTC144ES
R859 3300
PI-20 BOARD
IC201
DG OUT SWITCH
IC201 LA7016
H2
G NC
R263 1k
C217 0.01 B
C216 10 16V
C215 10 16V
Q224 2SA812
CN201
GND A1
GND B1
OSD IN (V) A2
OSD OUT (C) B2
GND A3
GND B3
GND A4
LINE 1 OUT (V) B4
TU IN (V) A5
GND B5
GND A6
TU/BS OUT B6
BS IN (V) A7
GND B7
GND A8
MONI OUT (V) B8
BS IN (Y) A9
GND B9
GND A10
LINE OUT (V) B10
LINE IN (V) A11
GND B11
GND A12
MONI OUT (C) B12
LINE 1 IN (Y) A13
GND B13
GND A14
MONI OUT (Y) B14
LINE OUT (Y) A15
LINE OUT (C) B15
TO MA-62 BOARD CN584
(See Page 128)
R218 22k
R251 10k
R212 22k
R252 10k
C261 10 10V B.P
C262 10 10V B.P
JW209
JW203
IC206
LINE SELECT
IC206 LVA522
Vcc NC GND
C230 0 16V
R902 100
C233 0.01 B
C231 10 16V
C232 10 16V
CN202
DG IN (C) A1
P IN P PC B1
GND A2
P IN P ON B2
DG OUT (C) A3
SHTL EDIT B3
GND A4
BLUE BACK B4
AGC OUT A5
BLANK B5
GND A6
Y/C PB B6
DG OUT A7
BS CONT B7
GND A8
Y/C TRAP B8
EE OUT C A9
PB 5V B9
GND A10
SW 5V B10
C OUT A11
GND B11
GND A12
SW -6V B12
Y OUT A13
GND B13
GND A14
SW 12V B14
OSD OUT (Y) A15
EE OUT (Y) B15
TO MA-62 BOARD CN583
(See Page 128)
L203 100μH
C250 47 16V
D1
D2
09


Q855 SWITCH
Q840 SWITCH
Q901 SWITCH
SLV-777VP
SLV-777UB
Q901 DTC144ES
C901 1000p :BX
R901 1k
CN586
1 OSD OUT(C)
2 SECAM.ACK
3 OSD OUT(Y)
4 GND (SW)
5 OSD IN (V)
6 BLANK
7 GND (SW)
8 SW 5V
TO MA-62 BOARD CN586
(See Page 128)
D852 1SS119
D851 1SS119
IC851
X851 17.7MHz
VDD 1
VERT
HOR
OSC 1
OSC 0
CSYN
R
G
B
CO
BLNK
YM
CB
RS
VDD 2
RS IN
VSS
CLK
AC
OSC 1
OSC 2
NT/PAL
CS
S1
PA OUT
SY EX
VSS 2
V OUT
V IN
LEBK
LECHA
CB IN
Q803 BACK GROUND VIDEO DET
Q801,802,853 SYNC TIP CLAMP
Q856 BUFFER
Q804 MUTE
Q857 BUFFER

- **Signal path**

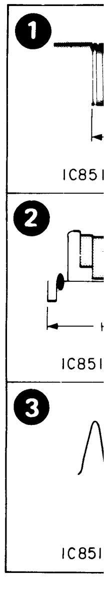
	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC				
PB			⇨	

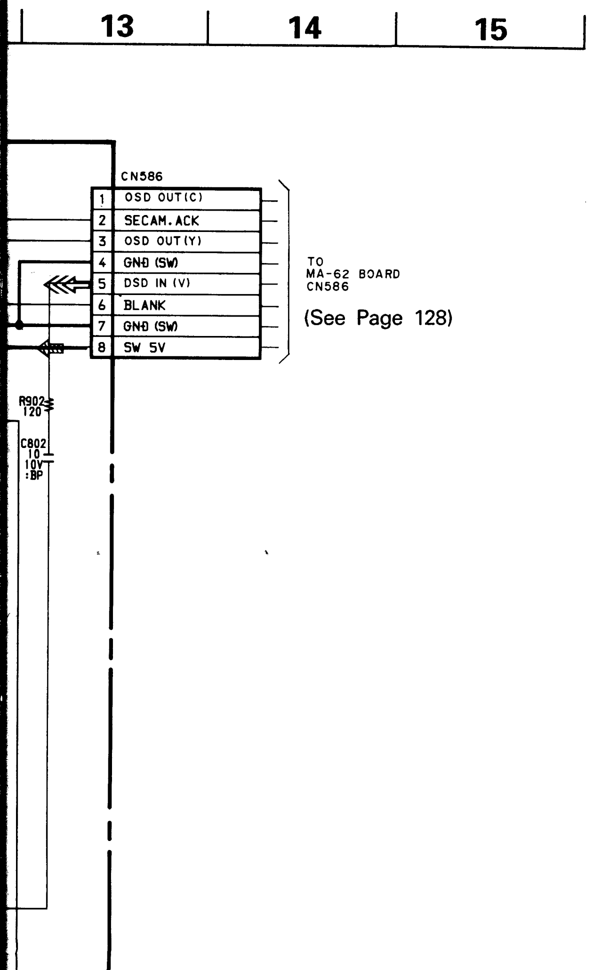

IC201
DG OUT SWITCH
IC201 LA7016
IC202
OSD SWITCH
IC202 LA7222
Q224 2SA812
IC208
SYNC/AMP
IC208 AN3916
LPF
B.G. Ref
KEYED/PEAK Det
AGC
Amp
H Sync Sep
Sync Clamp
DI Clamp
IC206
LINE SELECT
IC206 LVA522
Vcc
NC
GND
RV201 47k
L201 100μH

- **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡	
PB			⇨	

CG-10

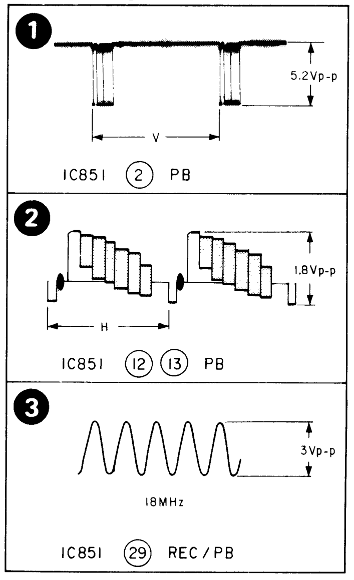



13
14
15
CN586
1 OSD OUT(C)
2 SECAM.ACK
3 OSD OUT(Y)
4 GND (SW)
5 DSD IN (V)
6 BLANK
7 GND (SW)
8 SW 5V
TO
MA-62 BOARD
CN586
(See Page 128)
R902
120
C802
10
10V
:BP

• **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC				
PB			⇨	

CG-10 BOARD



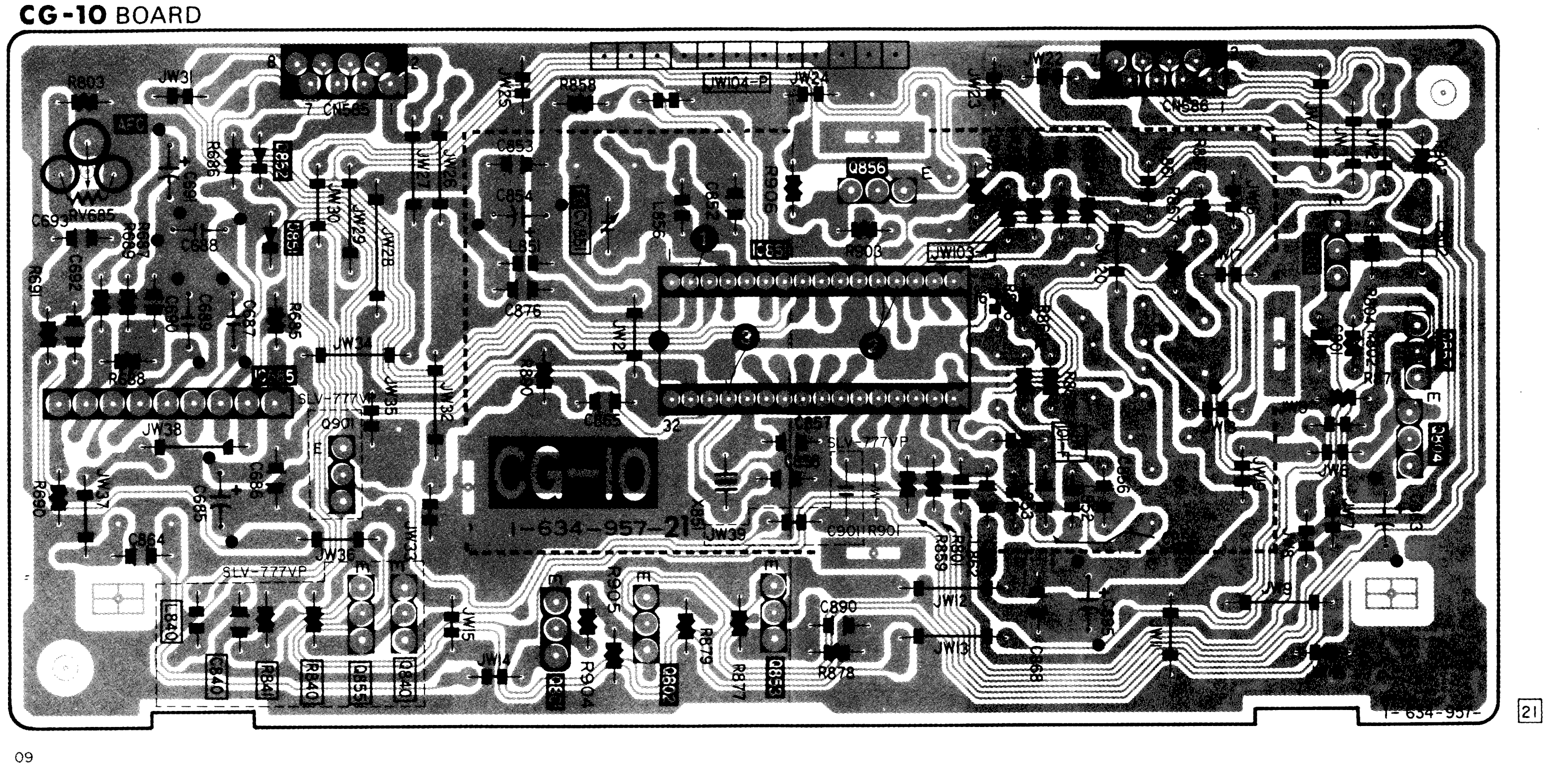
• **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡	
PB			⇨	

PI-20 (VIDEO SIGNAL SELECTOR), CG-10 (ON SCREEN DISPLAY CONTROLLER) PRINTED WIRING BOARDS

— Ref. No. PI-20 BOARD: 4000 series, CG-10 BOARD: 5000 series —

CG-10 BOARD



DIODE

D851	8-719-911-19	DIODE 1SS119
D852	8-719-911-19	DIODE 1SS119

IC

IC685	8-759-996-03	IC LVA519S
IC851	8-759-634-22	IC M50554-182SP

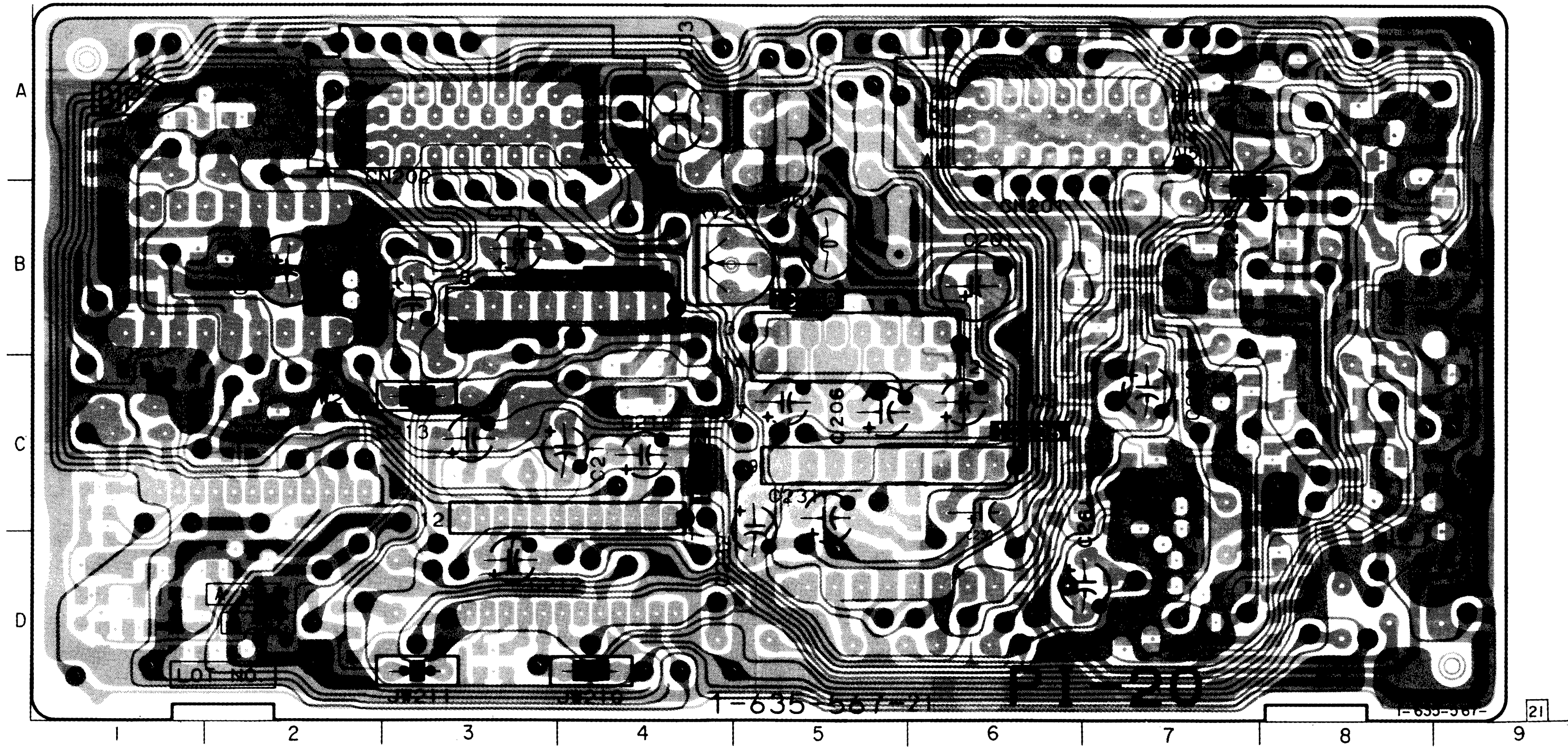
TRANSISTOR

Q801	8-729-900-61	TRANSISTOR DTA114ES
Q802	8-729-423-37	TRANSISTOR 2SA3311A-QRS
Q803	8-729-900-89	TRANSISTOR DTC144ES
Q804	8-729-900-65	TRANSISTOR DTA144ES
Q840	8-729-900-61	TRANSISTOR DTA114ES (SLV-777VP)
Q853	8-729-423-37	TRANSISTOR 2SA3311A-QRS
Q855	8-729-423-37	TRANSISTOR 2SA3311A-QRS (SLV-777VP)
Q856	8-729-423-44	TRANSISTOR 2SA1309A-QRS
Q857	8-729-423-37	TRANSISTOR 2SA3311A-QRS
Q901	8-729-900-89	TRANSISTOR DTC144ES (SLV-777VP)

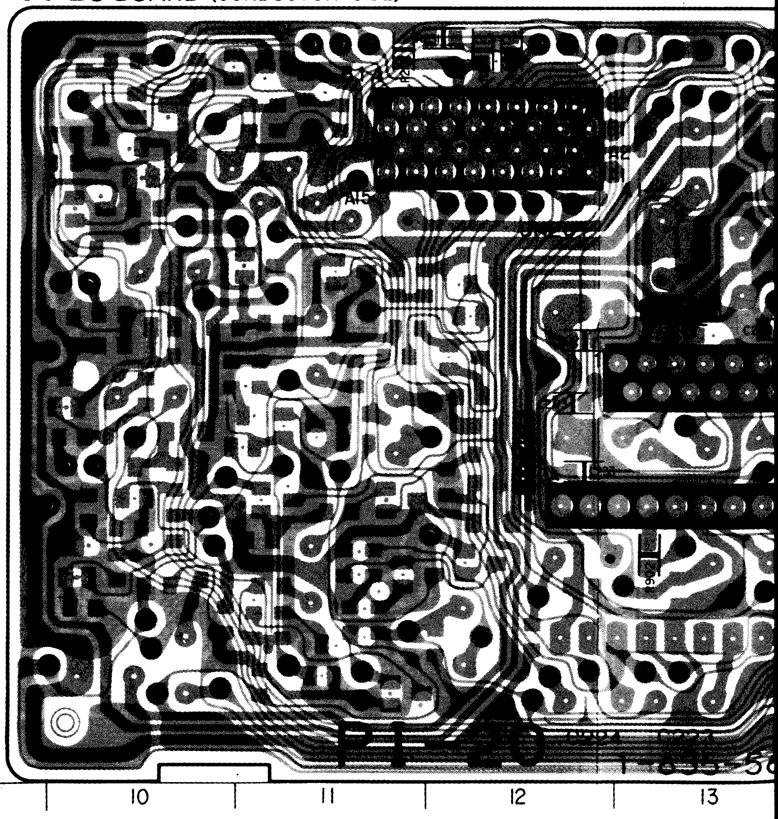
PI-20 BOARD

IC201	B-4
IC202	D-4
IC206	C-6
IC208	C-5
Q224	C-14

PI-20 BOARD (COMPONENT SIDE)



PI-20 BOARD (CONDUCTOR SIDE)

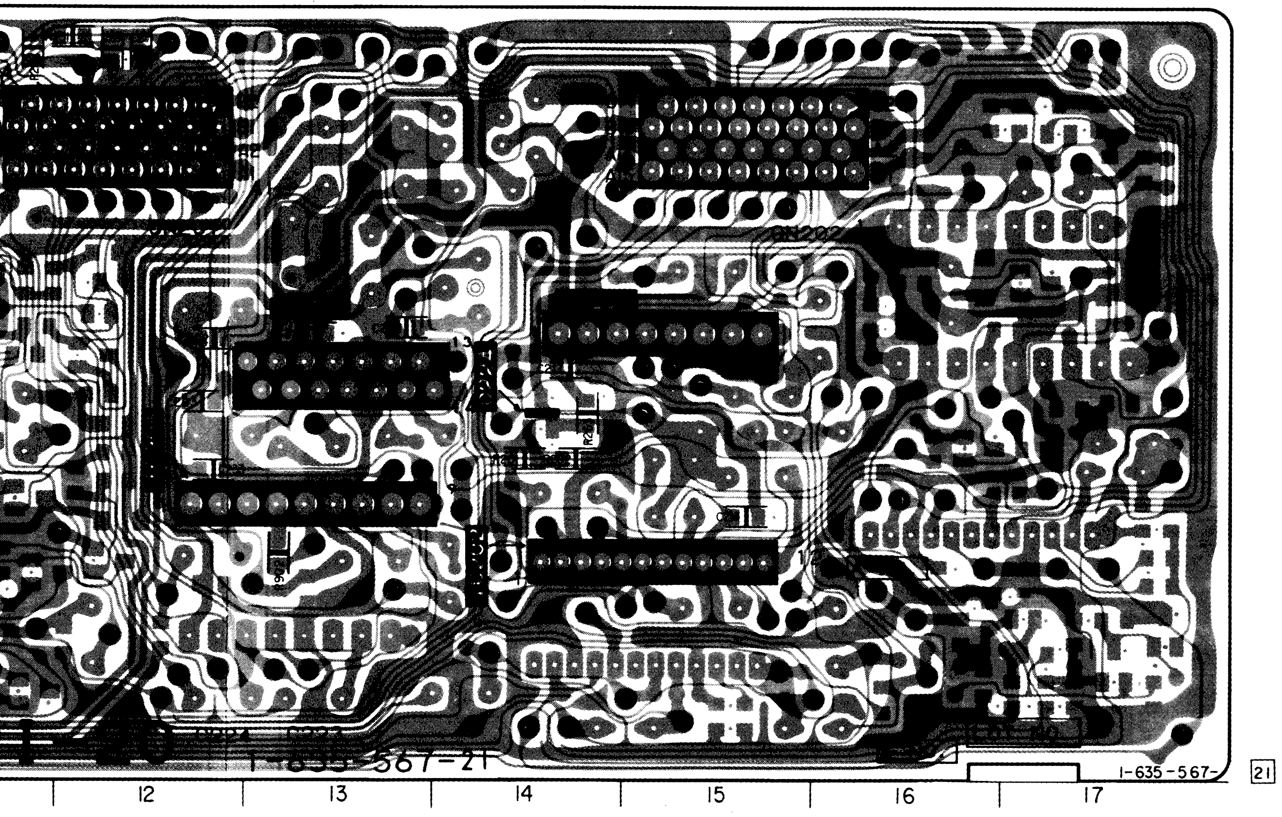


-QRS

(SLV-777VP)

-QRS
-QRS (SLV-777VP)
-QRS
-QRS
(SLV-777VP)

DE)


1-635-567-21
I-635-567-
21
12
13
14
15
16
17
CN202

IC

IC201	8-759-800-81	IC LA7016
IC202	8-759-822-60	IC LA7222
IC206	8-759-501-20	IC LVA522S
IC208	8-759-420-62	IC AN3916

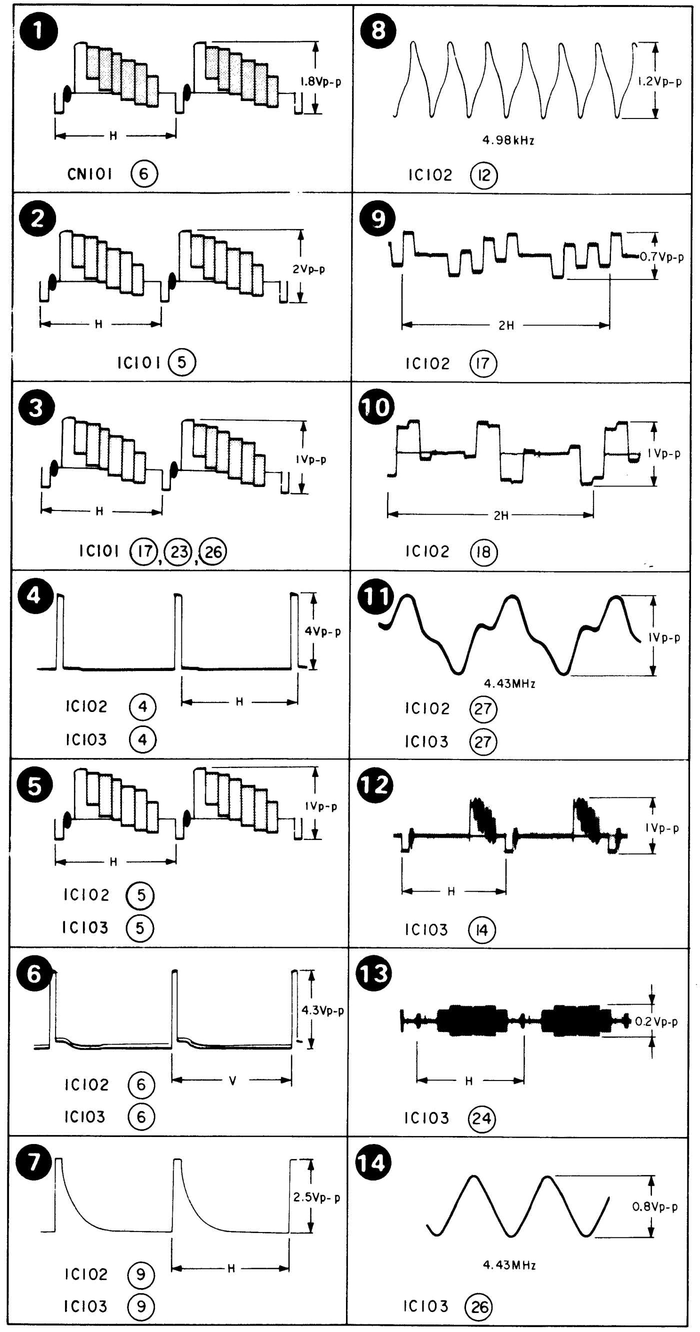
TRANSISTOR

Q224	8-729-216-22	TRANSISTOR 2SA1162

DG-11 (DIGITAL PICTURE PROCESS), DI-43 (RELAY) PRINTED WIRING BOARDS

— Ref. No. DG-11 BOARD: 5000 series, DI-43 BOARD: 8000 series —

DG-11 BOARD E-E mode (P IN P)



DIODE

D101	8-719-400-18	DIODE MA152WK
D105	8-719-400-18	DIODE MA152WK
D106	8-719-400-18	DIODE MA152WK
D109	8-719-400-18	DIODE MA152WK

IC

IC101	8-759-322-29	IC HA118088MPER
IC102	8-759-323-11	IC HA11567MP
IC103	8-759-322-34	IC HA11535MP
IC104	8-759-322-68	IC HD49410
IC105	8-759-322-51	IC HM53461ZP-12
IC108	8-759-008-74	IC MC14001BF
IC108	8-759-323-24	IC HD14001BFP-T1

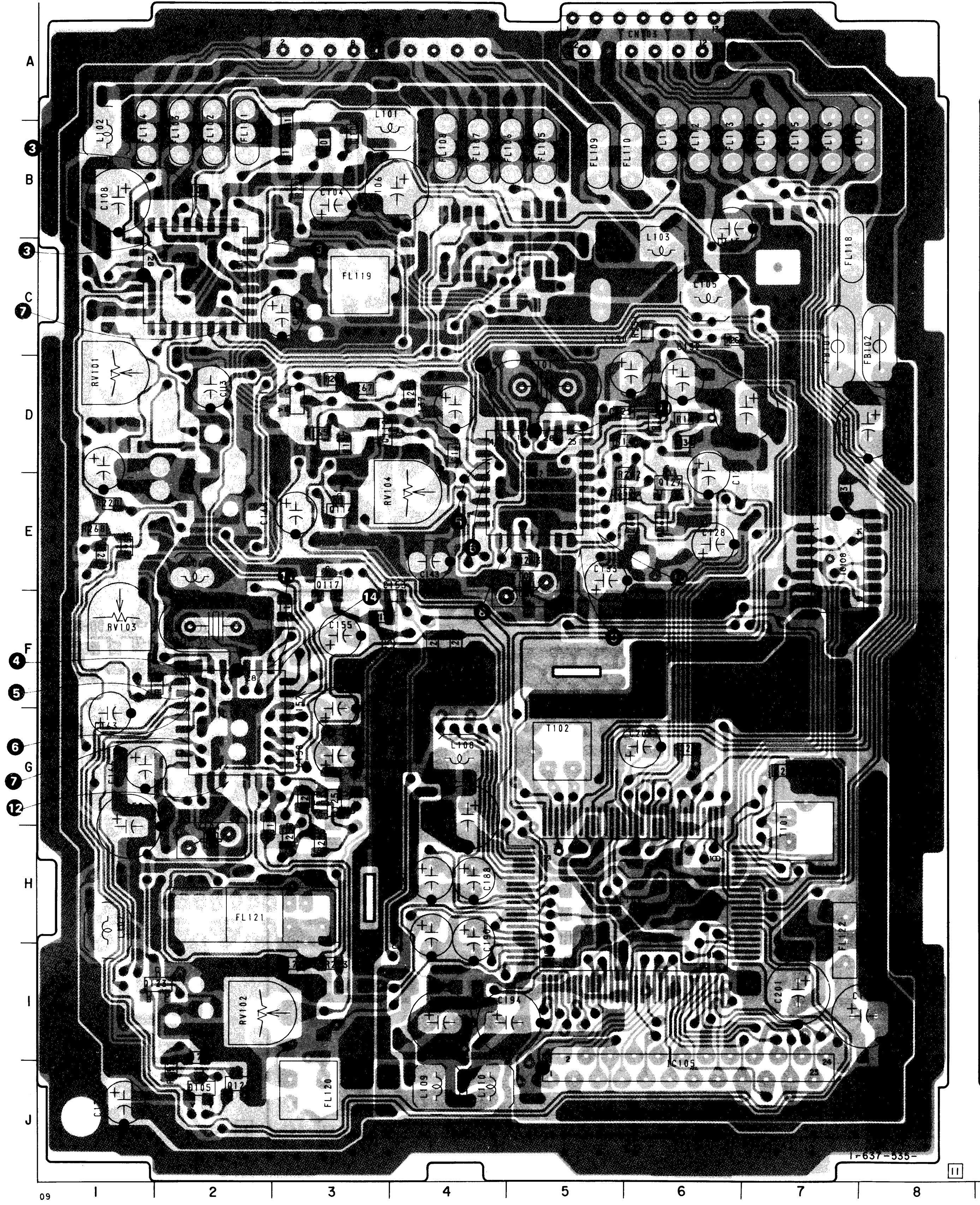
TRANSISTOR

Q101	8-729-305-25	TRANSISTOR 2SA1052-C
Q102	8-729-305-25	TRANSISTOR 2SA1052-C
Q103	8-729-305-25	TRANSISTOR 2SA1052-C
Q108	8-729-305-25	TRANSISTOR 2SA1052-C
Q109	8-729-305-25	TRANSISTOR 2SA1052-C
Q110	8-729-305-25	TRANSISTOR 2SA1052-C
Q112	8-729-901-00	TRANSISTOR DTC124EK
Q113	8-729-305-25	TRANSISTOR 2SA1052-C
Q114	8-729-271-22	TRANSISTOR 2SC2712-G
Q116	8-729-305-25	TRANSISTOR 2SA1052-C
Q117	8-729-271-22	TRANSISTOR 2SC2712-G
Q118	8-729-305-25	TRANSISTOR 2SA1052-C
Q120	8-729-901-00	TRANSISTOR DTC124EK
Q121	8-729-305-25	TRANSISTOR 2SA1052-C
Q122	8-729-271-22	TRANSISTOR 2SC2712-G
Q123	8-729-901-00	TRANSISTOR DTC124EK
Q125	8-729-903-82	TRANSISTOR FMW2
Q126	8-729-901-01	TRANSISTOR DTC144EK
Q127	8-729-271-22	TRANSISTOR 2SC2712-G

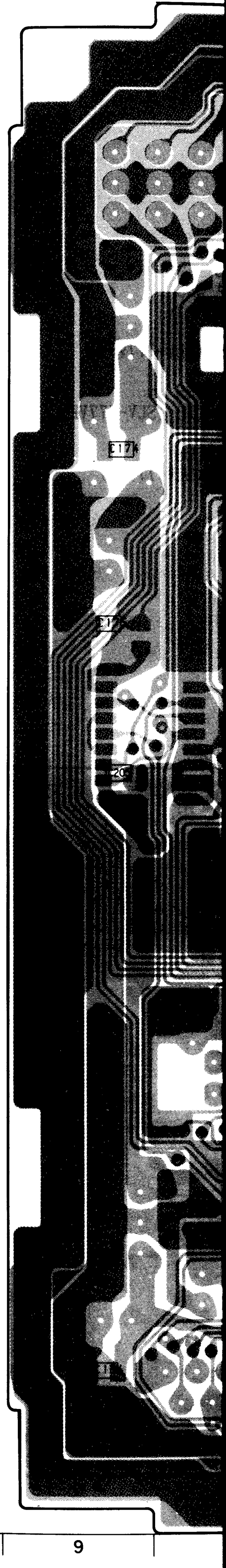
DG-11 BOARD

D101	D-3
D105	J-2
D106	D-14
D109	G-14
IC101	C-2
IC102	E-5
IC103	G-2
IC104	H-5
IC105	
IC108	E-7
Q101	C-14
Q102	A-14
Q103	A-15
Q108	D-14
Q109	D-11
Q110	E-11
Q112	D-3
Q113	D-14
Q114	E-3
Q116	E-16
Q117	E-3
Q118	F-16
Q120	I-15
Q121	I-15
Q122	J-2
Q123	I-2
Q125	G-3
Q126	H-14
Q127	E-6

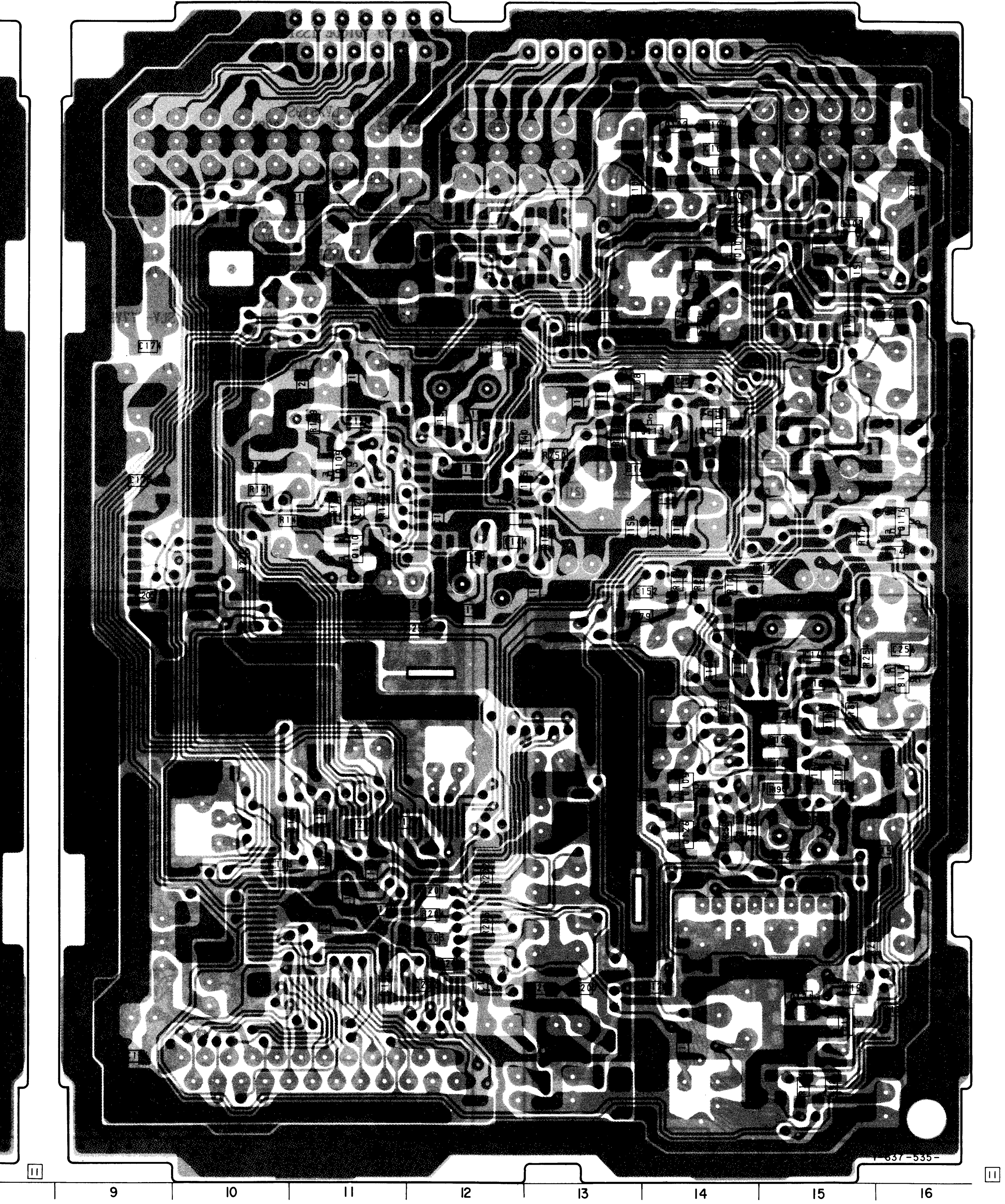
DG-11 BOARD (COMPONENT SIDE)



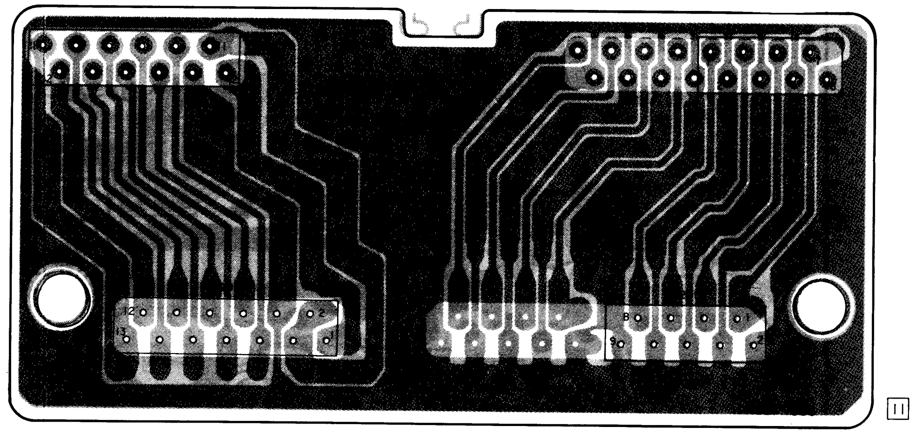
DG-11 BOARD (COND



DG-11 BOARD (CONDUCTOR SIDE)

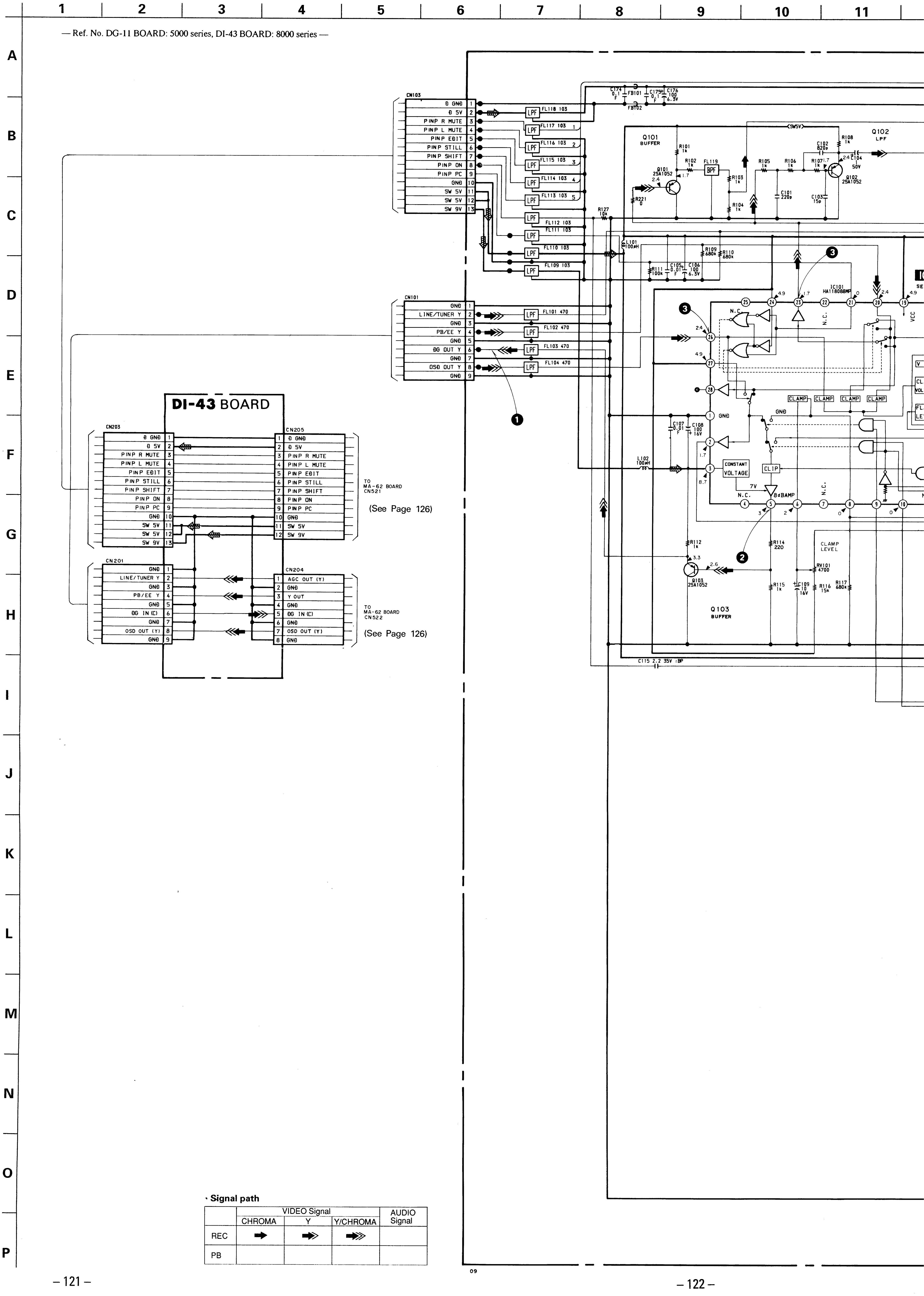

11
1-637-535-
11
9
10
11
12
13
14
15
16

DI-43 BOARD



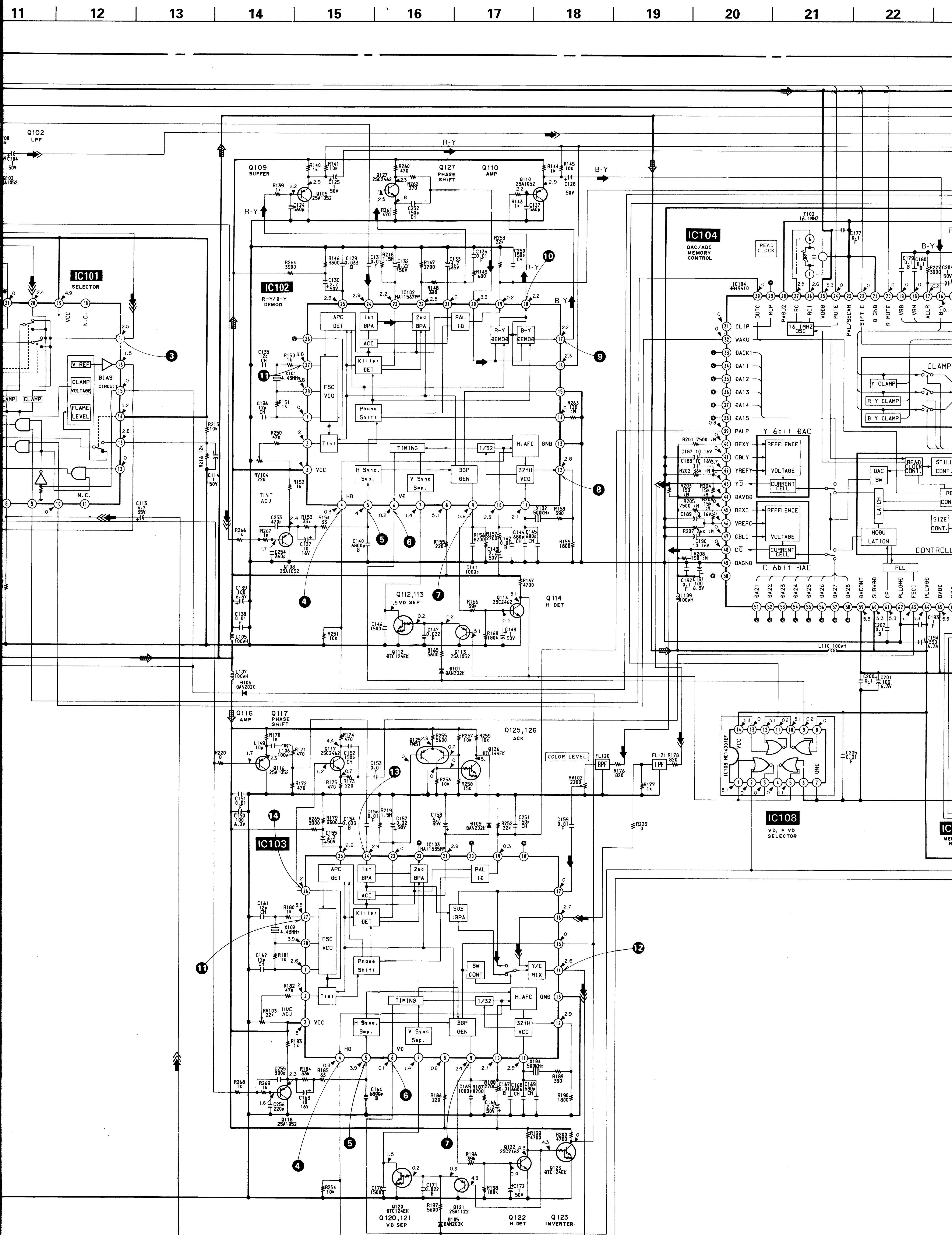
DG-11 (DIGITAL PICTURE PROCESS), DI-43 (RELAY) SCHEMATIC DIAGRAMS

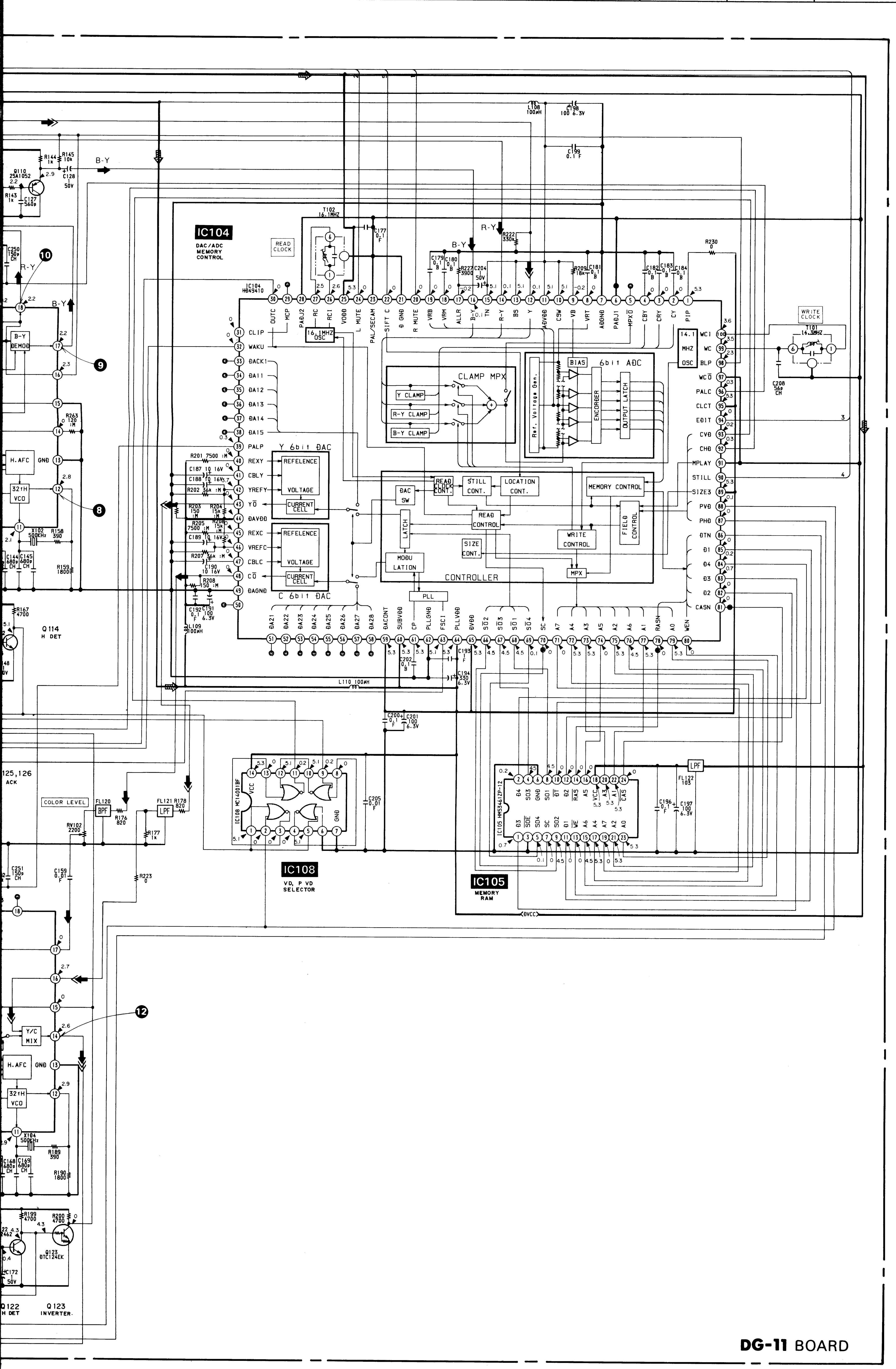
— Ref. No. DG-11 BOARD: 5000 series, DI-43 BOARD: 8000 series —


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
CN103
D GND
D 5V
PINP R MUTE
PINP L MUTE
PINP EDIT
PINP STILL
PINP SHIFT
PINP ON
PINP PC
GND
SW 5V
SW 5V
SW 9V
LPF
FL118 103
FL117 103
FL116 103
FL115 103
FL114 103
FL113 103
FL112 103
FL111 103
FL110 103
FL109 103
CN101
GND
LINE/TUNER Y
PB/EE Y
DG OUT Y
OSD OUT Y
FL101 470
FL102 470
FL103 470
FL104 470
DI-43 BOARD
CN203
CN205
CN201
CN204
AGC OUT (Y)
Y OUT
DG IN (C)
OSD OUT (Y)
TO MA-62 BOARD CN521
(See Page 126)
TO MA-62 BOARD CN522
(See Page 126)
C174 0.1 F
FB101
C175 0.1 F
C176 100 6.3V
FB102
Q101 BUFFER
Q101 2SA1052
R101 1k
R102 1k
FL119
BPF
R103 1k
R104 1k
R105 1k
R106 1k
R107 1k
R108 1k
C101 220p
C102 820p
C103 15p
C104 1 50V
Q102 LPF
Q102 2SA1052
R221 0
R127 10k
L101 100μH
R109 680k
R110 680k
R111 100k
C105 0.01 F
C106 100 6.3V
IC101 HA11808BMP
VCC
N.C.
CLAMP
GND
C107 0.01 F
C108 100 16V
L102 100μH
CONSTANT VOLTAGE
CLIP
7V
8dBAMP
R112 1k
R114 220
CLAMP LEVEL
RV101 4700
R115 1k
C109 10 16V
R116 15k
R117 680k
Q103 2SA1052
Q103 BUFFER
C115 2.2 35V :BP
1
2
3
09

· **Signal path**

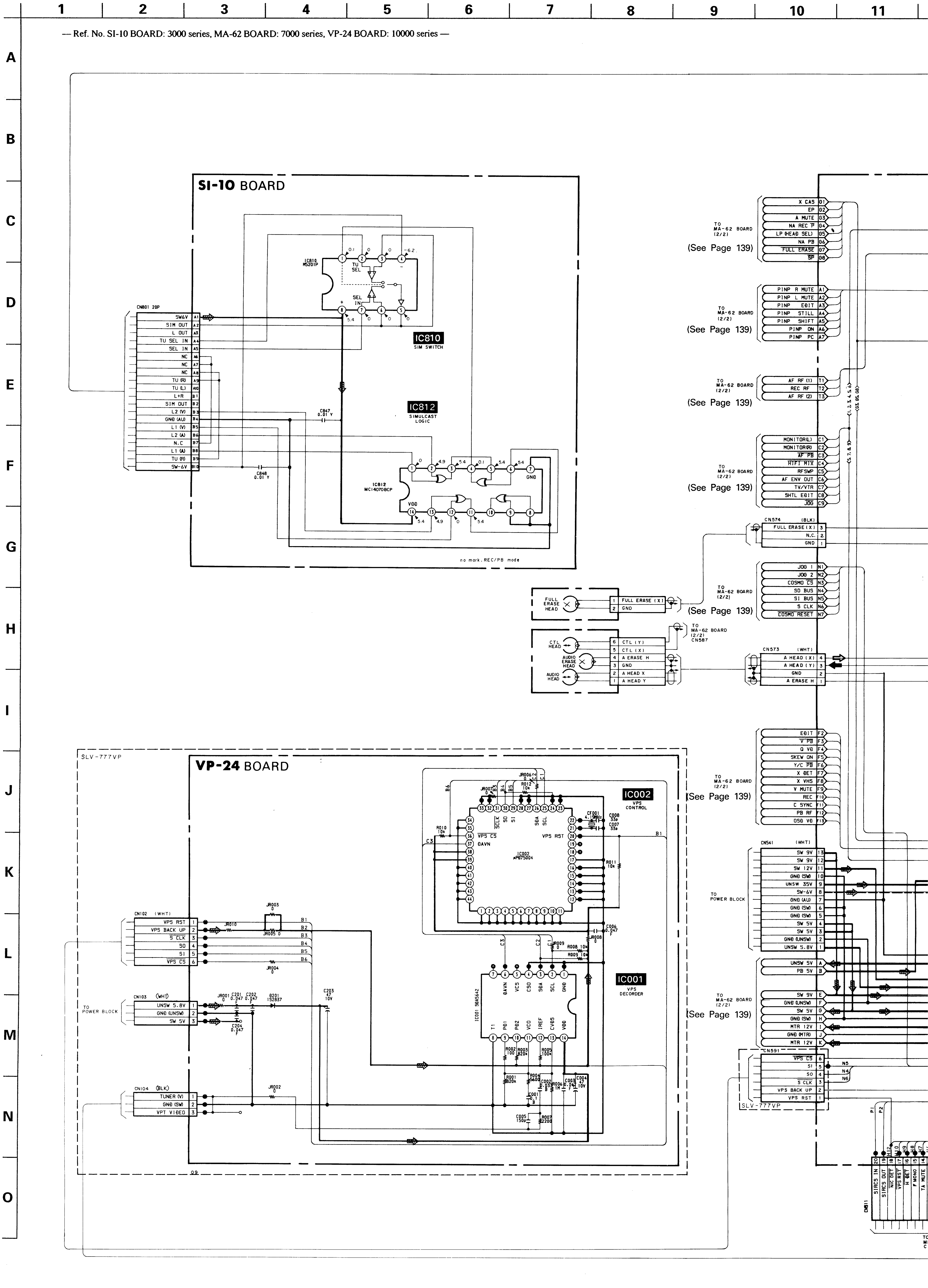
	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC	➡	⇛	⇛	
PB				


11
12
13
14
15
16
17
18
19
20
21
22
Q102 LPF
IC101 SELECTOR
VCC
N.C.
V REF
CLAMP VOLTAGE
FLAME LEVEL
BIAS CIRCUIT
CLAMP
Q109 BUFFER
Q127 PHASE SHIFT
Q110 AMP
R-Y
B-Y
IC102 R-Y/B-Y DEMOD
APC DET
1st BPA
2nd BPA
PAL ID
ACC
Killer DET
FSC VCO
Phase Shift
Tint
R-Y DEMOD
B-Y DEMOD
TIMING
1/32
H.AFC
GND
H Sync. Sep.
V Sync Sep.
BGP GEN
321H VCO
TINT ADJ
HD
VD
Q112,113 1.5VD SEP
Q114 H DET
Q108 2SA1052
X101 4.43MHz
X102 500KHz
IC104 DAC/ADC MEMORY CONTROL
READ CLOCK
T102 16.1MHZ
16.1MHZ OSC
CLIP
WAKU
REXY
CBLY
YREFY
YO
REXC
VREFC
CBLC
CO
Y 6bit DAC
C 6bit DAC
REFELENCE
VOLTAGE
CURRENT CELL
CLAMP
Y CLAMP
R-Y CLAMP
B-Y CLAMP
DAC SW
LATCH
MODU LATION
READ CLOCK CONT.
STILL CONT.
SIZE CONT.
CONTROLL
PLL
IC108 MC14001BF
IC108 VD, P VD SELECTOR
Q116 AMP
Q117 PHASE SHIFT
Q125,126 ACK
COLOR LEVEL
FL120 BPF
FL121 LPF
IC103
SUB BPA
SW CONT
Y/C MIX
HUE ADJ
X103 4.43MHz
X104 500KHz
Q118 2SA1052
Q120,121 VD SEP
Q122 H DET
Q123 INVERTER.


IC104
DAC/ADC MEMORY CONTROL
IC104 H049410
READ CLOCK
WRITE CLOCK
T102 16.1MHZ
T101 14.3MHZ
16.1MHZ OSC
14.1 MHZ OSC
CLAMP MPX
Y CLAMP
R-Y CLAMP
B-Y CLAMP
6bit ADC
BIAS
Ref. Voltage Gen.
ENCORDER
OUTPUT LATCH
Y 6bit DAC
C 6bit DAC
REFELENCE
VOLTAGE
CURRENT CELL
READ CLOCK CONT.
STILL CONT.
LOCATION CONT.
MEMORY CONTROL
DAC SW
READ CONTROL
LATCH
SIZE CONT.
WRITE CONTROL
FIELD CONTROL
MODU LATION
MPX
PLL
CONTROLLER
CLIP
WAKU
PALP
REXY
CBLY
YREFY
REXC
VREFC
CBLC
DAGND
DAVDD
PALC
CLCT
EDIT
MPLAY
STILL
SIZE3
CASN
WEN
RASN
B-Y
R-Y
B-Y DEMOD
H.AFC
321H VCO
Y/C MIX
Q110 2SA1052
Q114 H DET
Q122 H DET
Q123 DTC124EK
Q123 INVERTER
125,126
COLOR LEVEL
FL120 BPF
FL121 LPF
FL122 LPF
L108 100μH
L109 100μH
L110 100μH
IC108
IC108 MC14001BF
VD, P VD SELECTOR
IC105
IC105 HM53461ZP-12
MEMORY RAM
DVCC
⑧
⑨
⑩
⑫
DG-11 BOARD

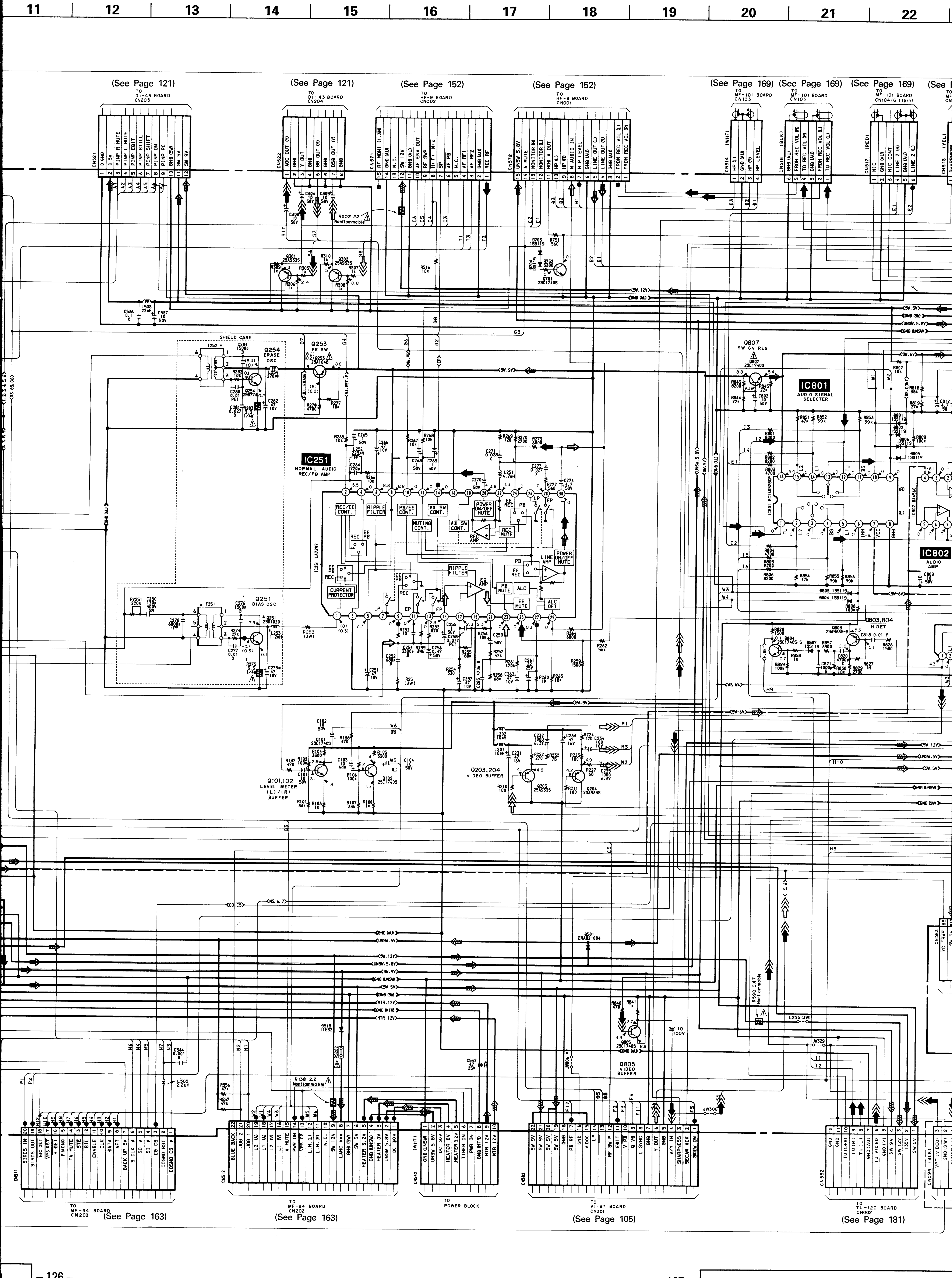
MA-62 (SERVO, SYSTEM CONTROL, AUDIO), SI-10 (SIMULCAST), VP-24 (VPS) SCHEMATIC DIAGRAMS

— Ref. No. SI-10 BOARD: 3000 series, MA-62 BOARD: 7000 series, VP-24 BOARD: 10000 series —

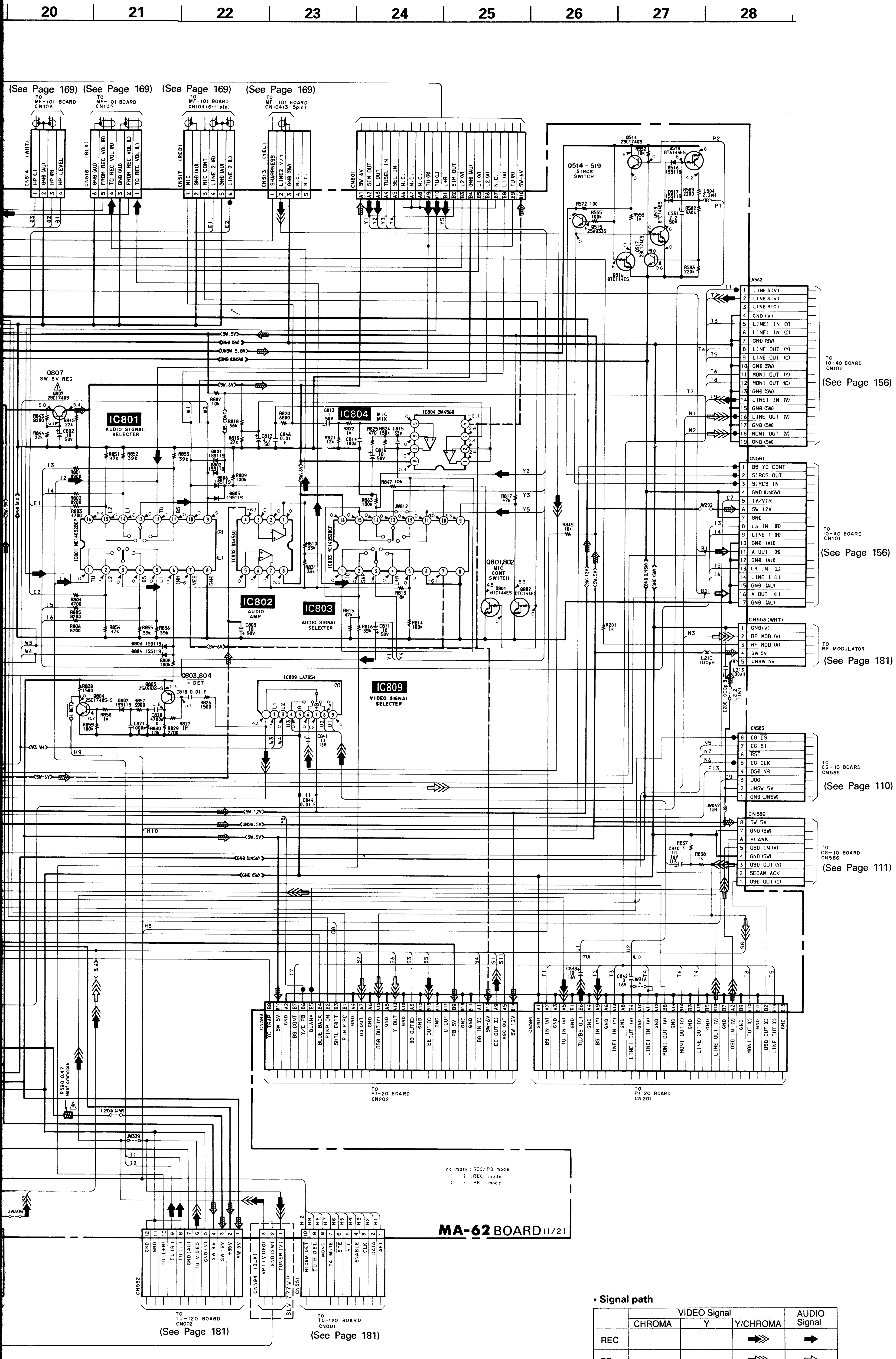

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
SI-10 BOARD
IC810 M5201P
TU SEL
SEL IN
IC810
SIM SWITCH
IC812
SIMULCAST LOGIC
IC812 MC14070BCP
VDD
GND
C847 0.01 Y
C848 0.01 Y
no mark. REC/PB mode
CN801 20P
SW6V A1
SIM OUT A2
L OUT A3
TU SEL IN A4
SEL IN A5
NC A6
NC A7
NC A8
TU (R) A9
TU (L) A10
L+R B1
SIM OUT B2
L2 (V) B3
GND (AU) B4
L1 (V) B5
L2 (A) B6
N.C B7
L1 (A) B8
TU (R) B9
SW-6V B10
TO MA-62 BOARD (2/2)
(See Page 139)
X CAS G1
EP G2
A MUTE G3
NA REC P G4
LP (HEAD SEL) G5
NA PB G6
FULL ERASE G7
SP G8
PINP R MUTE A1
PINP L MUTE A2
PINP EDIT A3
PINP STILL A4
PINP SHIFT A5
PINP ON A6
PINP PC A7
AF RF (1) T1
REC RF T2
AF RF (2) T3
MONITOR(L) C1
MONITOR(R) C2
AF PB C3
HIFI MIX C4
RFSWP C5
AF ENV OUT C6
TV/VTR C7
SHTL EDIT C8
JOG C9
CN574 (BLK)
FULL ERASE (X) 3
N.C. 2
GND 1
JOG 1 N1
JOG 2 N2
COSMO CS N3
SD BUS N4
SI BUS N5
S CLK N6
COSMO RESET N7
FULL ERASE HEAD
FULL ERASE (X) 1
GND 2
CTL HEAD
AUDIO ERASE HEAD
AUDIO HEAD
CTL (Y) 6
CTL (X) 5
A ERASE H 4
GND 3
A HEAD X 2
A HEAD Y 1
TO MA-62 BOARD (2/2) CN587
CN573 (WHT)
A HEAD (X) 4
A HEAD (Y) 3
GND 2
A ERASE H 1
EDIT F2
V PB F3
Q VD F4
SKEW ON F5
Y/C PB F6
X DET F7
X VHS F8
V MUTE F9
REC F10
C SYNC F11
PB RF F12
OSD VD F13
CN541 (WHT)
TO POWER BLOCK
SW 9V 13
SW 9V 12
SW 12V 11
GND (SW) 10
UNSW 35V 9
SW-6V 8
GND (AU) 7
GND (SW) 6
GND (SW) 5
SW 5V 4
SW 5V 3
GND (UNSW) 2
UNSW 5.8V 1
UNSW 5V A
PB 5V B
SW 9V E
GND (UNSW) F
SW 5V G
GND (SW) H
MTR 12V I
GND (MTR) J
MTR 12V K
CN591
VPS CS 6
SI 5
SO 4
S CLK 3
VPS BACK UP 2
VPS RST 1
SLV-777VP
SLV-777VP
VP-24 BOARD
IC002
VPS CONTROL
IC002 μPD75004
VPS CS
DAVN
VPS RST
SCLK
SO
SI
SDA
SCL
CF001 4.19MHz
C008 33p
C007 33p
R010 10k
R011 10k
R012 10k
JR006 0
JR007 0
C006 0.047
IC001
VPS DECORDER
IC001 SDA5642
DAVN
VCS
CSO
SDA
SCL
GND
T1
PD1
PD2
VCO
IREF
CVBS
VDD
R002 100
R003 820k
R005 100k
R001 820k
R004 5600
C002 0.033
JR006 1M
C003 0.047
C004 47 10V
C001 0.1 B
C005 150p
R007 2200
JR009 0
R008 10k
R009 10k
JR008 0
CN102 (WHT)
VPS RST 1
VPS BACK UP 2
S CLK 3
SO 4
SI 5
VPS CS 6
JR003 0
JR010
JR005 0
JR004 0
B1
B2
B3
B4
B5
B6
C3
C2
C1
CN103 (WHT)
TO POWER BLOCK
UNSW 5.8V 1
GND (UNSW) 2
SW 5V 3
JR001 0
C201 0.047
C202 0.047
D201 1SS37
C203 47 10V
C204 0.047
CN104 (BLK)
TUNER (V) 1
GND (SW) 2
VPT VIDEO 3
JR002 0
CN511
SIRCS IN 20
SIRCS OUT 19
NIC DET 18
VPS RST 17
H DET 16
F MONO 15
TA MUTE 14
P1
P2
N5
N4
N6

SERVO, SYSTEM CONTROL

SERVO, SYSTEM CONTROL


11
12
13
14
15
16
17
18
19
20
21
22
(See Page 121)
TO DI-43 BOARD CN205
(See Page 121)
TO DI-43 BOARD CN204
(See Page 152)
TO HF-9 BOARD CN002
(See Page 152)
TO HF-9 BOARD CN001
(See Page 169)
TO MF-101 BOARD CN103
(See Page 169)
TO MF-101 BOARD CN105
(See Page 169)
TO MF-101 BOARD CN104 (6-11pin)
CN521
CN522
CN571
CN572
CN514 (WHT)
CN516 (BLK)
CN517 (RED)
CN513 (YEL)
SHIELD CASE
Q254 ERASE OSC
Q253 FE SW
Q251 BIAS OSC
IC251
NORMAL AUDIO REC/PB AMP
IC251 LA7297
Q301 2SA933S
Q302 2SA933S
Q701 2SC1740S
Q807 SW 6V REG
IC801
AUDIO SIGNAL SELECTER
IC801 MC14052BCP
IC802
AUDIO AMP
IC802 BA4560
Q803,804 H DET
Q101,102 LEVEL METER (L)/(R) BUFFER
Q203,204 VIDEO BUFFER
Q805 VIDEO BUFFER
REC/EE CONT.
RIPPLE FILTER
PB/EE CONT.
HI SW CONT.
POWER ON/OFF MUTE
MUTING CONT.
HI SW CONT.
REC MUTE
REC AMP
LINE AMP
CURRENT PROTECTOR
EQ AMP
PB MUTE
ALC
EE MUTE
ALC DET
CN511
TO MF-94 BOARD CN203
(See Page 163)
CN512
TO MF-94 BOARD CN202
(See Page 163)
CN542
TO POWER BLOCK
CN582
TO VI-97 BOARD CN301
(See Page 105)
CN552
TO TU-120 BOARD CN002
(See Page 181)
CN594
CN503

SERVO, SYSTEM CONTRO


20
21
22
23
24
25
26
27
28
(See Page 169) TO MF-101 BOARD CN103
(See Page 169) TO MF-101 BOARD CN105
(See Page 169) TO MF-101 BOARD CN104(6-11pin)
(See Page 169) TO MF-101 BOARD CN104(3-5pin)
CN514 (WHT)
CN516 (BLK)
CN517 (RED)
CN513 (YEL)
CN801
Q514 - 519 SIRCS SWITCH
CN562
TO 10-40 BOARD CN102 (See Page 156)
CN561
TO 10-40 BOARD CN101 (See Page 156)
CN553 (WHT)
TO RF MODULATOR (See Page 181)
CN585
TO CG-10 BOARD CN585 (See Page 110)
CN586
TO CG-10 BOARD CN586 (See Page 111)
Q807 SW 6V REG
IC801 AUDIO SIGNAL SELECTER
IC804 MIC MIX
IC802 AUDIO AMP
IC803 AUDIO SIGNAL SELECTER
Q801,802 MIC CONT SWITCH
Q803,804 H DET
IC809 VIDEO SIGNAL SELECTER
CN583
CN584
TO PI-20 BOARD CN202
TO PI-20 BOARD CN201
CN552
TO TU-120 BOARD CN002 (See Page 181)
CN594
SLV-777VP
CN551
TO TU-120 BOARD CN001 (See Page 181)
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode

MA-62 BOARD(1/2)

• Signal path

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			⇛	➡
PB			⇉	⇨

DIODE

D401	8-719-911-19	DIODE 1SS119
D402	8-719-911-19	DIODE 1SS119
D403	8-719-911-19	DIODE 1SS119
D404	8-719-911-19	DIODE 1SS119
D409	8-719-101-50	DIODE RD5. 1E-L2
D410	8-719-911-19	DIODE 1SS119
D501	8-719-913-44	DIODE ERA82-004
D502	8-719-911-19	DIODE 1SS119
D505	8-719-911-19	DIODE 1SS119
D508	8-719-101-47	DIODE RD4. 7E-L2
D516	8-719-911-19	DIODE 1SS119
D517	8-719-911-19	DIODE 1SS119
D518	8-719-200-82	DIODE 11ES2
D519	8-719-109-93	DIODE RD6. 2ES-B2
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D801	8-719-911-19	DIODE 1SS119
D802	8-719-911-19	DIODE 1SS119
D803	8-719-911-19	DIODE 1SS119
D804	8-719-911-19	DIODE 1SS119
D805	8-719-911-19	DIODE 1SS119
D806	8-719-911-19	DIODE 1SS119
D807	8-719-911-19	DIODE 1SS119
D999	8-719-911-19	DIODE 1SS119TG

IC

IC251	8-759-805-20	IC LA7297
IC401	8-759-000-49	IC MC14066BCP
IC402	8-759-632-58	IC M52435P
IC403	8-759-008-70	IC LM358N
IC404	8-759-981-85	IC RC4556D
IC406	8-759-008-71	IC LM324N
IC501	8-752-815-90	IC CXP80624-009Q
IC502	⚠8-759-983-45	IC BA6238A
IC503	8-759-035-36	IC MC68HC05P7
IC801	8-759-152-34	IC TC4052BPHB
IC802	8-759-923-90	IC BA4560
IC803	8-759-208-08	IC TC4052BPHB
IC804	8-759-923-90	IC BA4560
IC809	8-759-822-71	IC LA7954

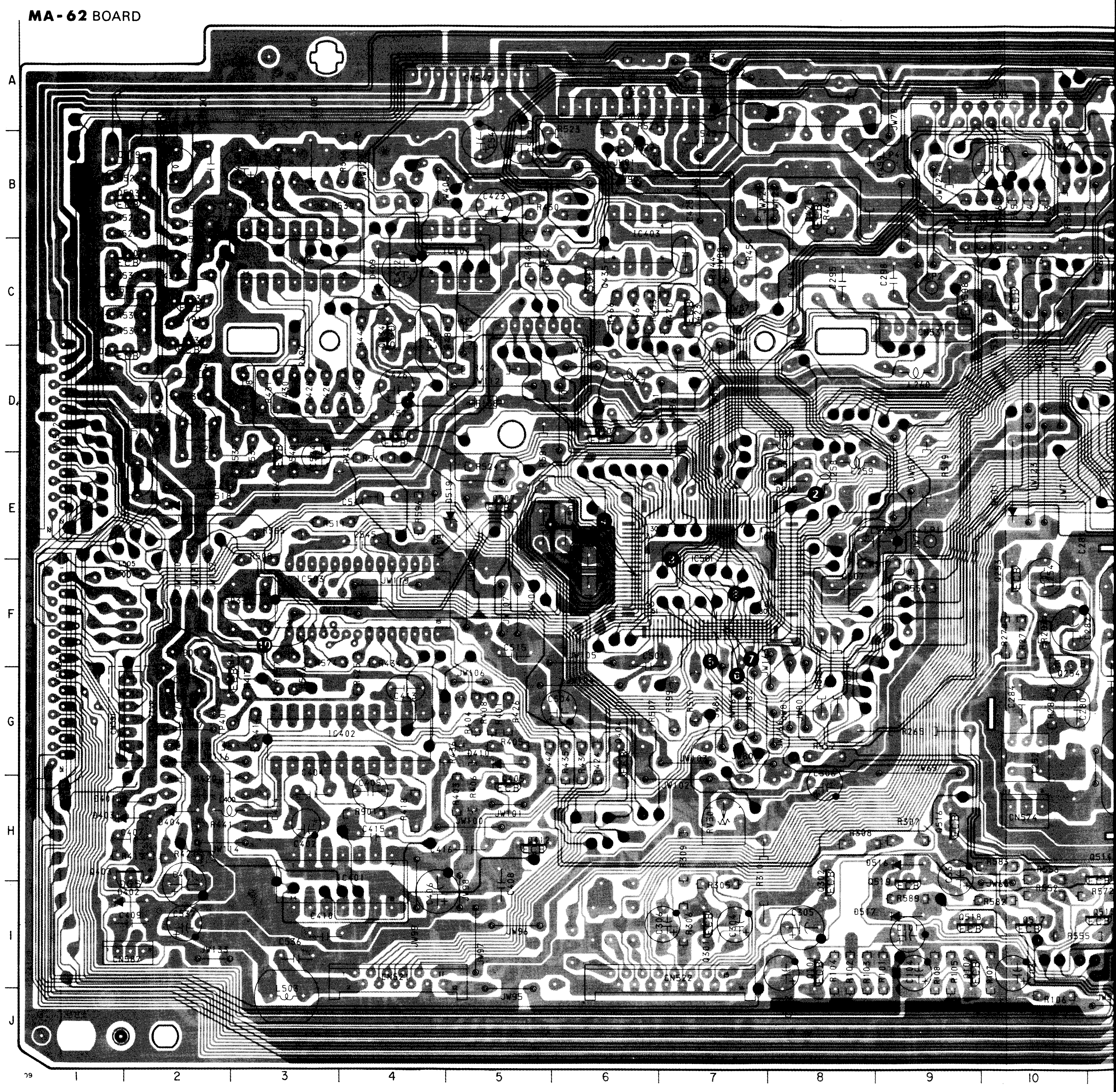
TRANSISTOR

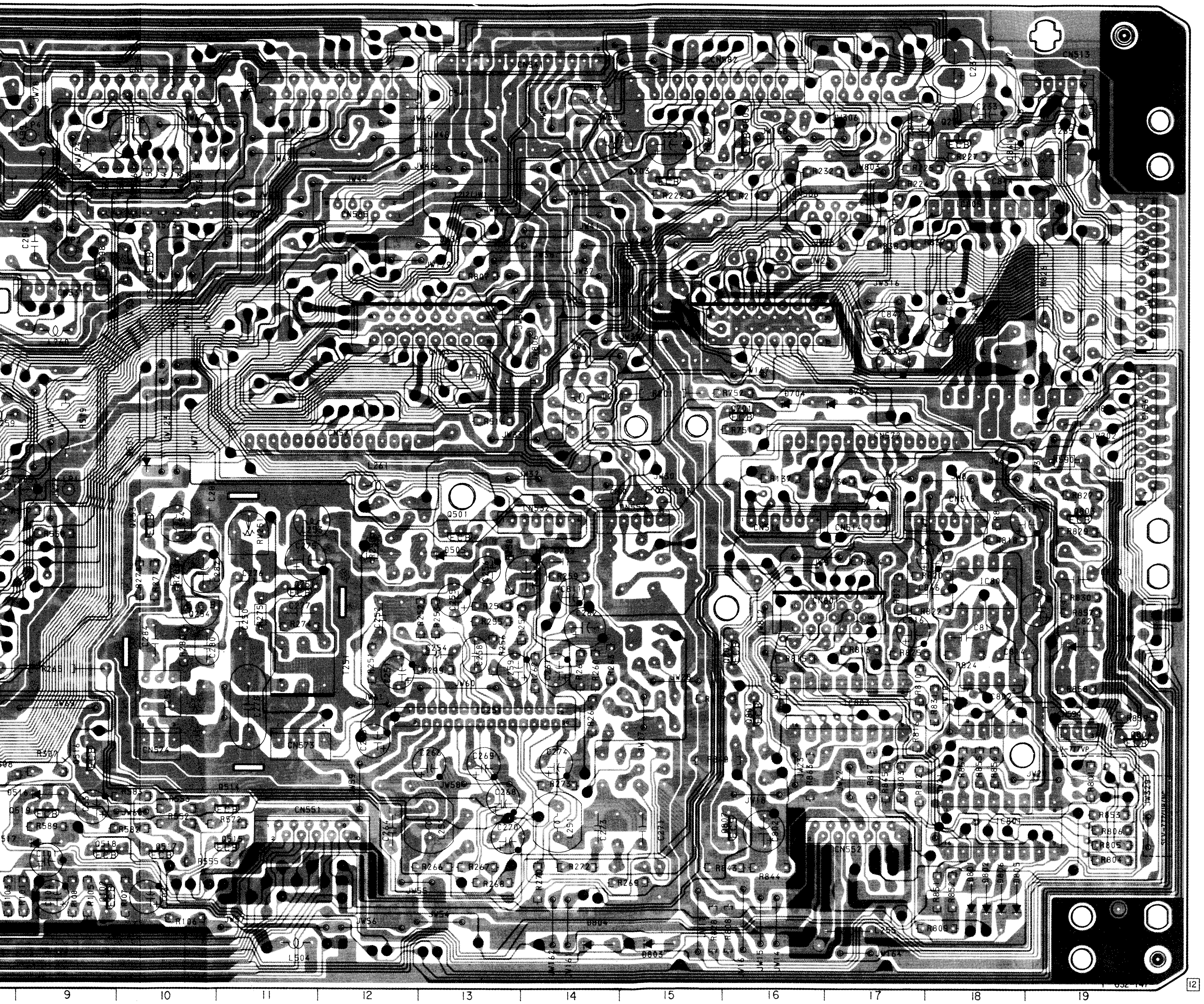
Q101	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q102	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q203	8-729-920-68	TRANSISTOR 2SA933S-QR
Q204	8-729-920-68	TRANSISTOR 2SA933S-QR
Q251	8-729-102-14	TRANSISTOR 2SD1021
Q253	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q254	⚠8-729-140-96	TRANSISTOR 2SD774-34
Q301	8-729-920-68	TRANSISTOR 2SA933S-QR
Q302	8-729-920-68	TRANSISTOR 2SA933S-QR
Q401	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q403	8-729-115-10	TRANSISTOR 2SK105A-10
Q404	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q405	8-729-900-89	TRANSISTOR DTC144ES
Q410	8-729-900-65	TRANSISTOR DTA144ES
Q412	8-729-900-89	TRANSISTOR DTC144ES
Q423	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q428	8-729-920-68	TRANSISTOR 2SA933S-QR
Q430	8-729-900-89	TRANSISTOR DTC144ES
Q431	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q434	8-729-601-47	TRANSISTOR 2SK381-B
Q435	8-729-601-47	TRANSISTOR 2SK381-B
Q501	8-729-900-61	TRANSISTOR DTA114ES
Q502	8-729-900-61	TRANSISTOR DTA114ES
Q503	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q504	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q505	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q506	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q507	8-729-900-61	TRANSISTOR DTA114ES
Q508	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q514	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q515	8-729-920-68	TRANSISTOR 2SA933S-QR
Q516	8-729-900-80	TRANSISTOR DTC114ES
Q517	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q518	8-729-900-89	TRANSISTOR DTC144ES
Q519	8-729-900-65	TRANSISTOR DTA144ES
Q701	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q801	8-729-900-89	TRANSISTOR DTC144ES
Q802	8-729-900-89	TRANSISTOR DTC144ES
Q803	8-729-920-68	TRANSISTOR 2SA933S-QR
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q805	8-729-920-70	TRANSISTOR 2SC1740S-QR
Q807	⚠8-729-920-70	TRANSISTOR 2SC1740S-QR

MA-62 (SERVO, SYSTEM CONTROL, AUDIO), SI-10 (SIMULCAST), VP-24 (VPS) PRINTED WIRING BOARDS

— Ref. No. SI-10 BOARD: 3000 series, MA-62 BOARD: 7000 series, VP-24 BOARD: 10000 series —

MA-62	BOARD
D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	C-4
D410	H-5
D501	E-10
D502	E-8
D505	F-13
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D703	E-17
D704	E-16
D801	I-18
D802	I-18
D803	G-15
D804	G-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	G-3
IC403	C-6
IC404	C-5
IC406	C-3
IC501	F-7
IC502	B-6
IC503	F-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	G-18
IC809	C-18
Q101	I-8
Q102	I-9
Q203	B-15
Q204	B-8
Q251	G-11
Q253	F-10
Q254	G-10
Q301	I-7
Q302	I-8
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	C-7
Q428	C-8
Q430	D-2
Q431	C-2
Q432	D-4
Q435	C-6
Q501	F-13
Q502	E-6
Q503	B-2
Q504	C-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	C-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	G-16
Q803	F-19
Q804	H-19
Q805	B-15
Q807	I-16

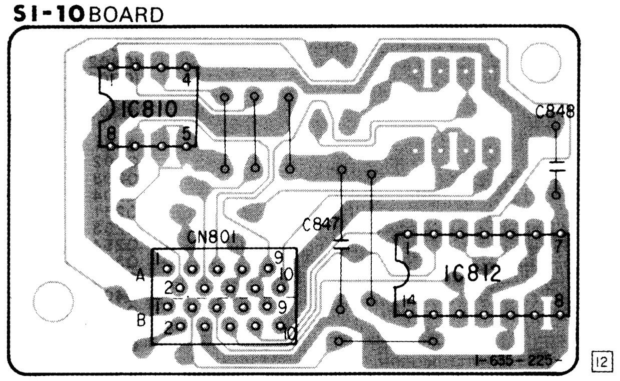



9
10
11
12
13
14
15
16
17
18
19
1-632-147-
12

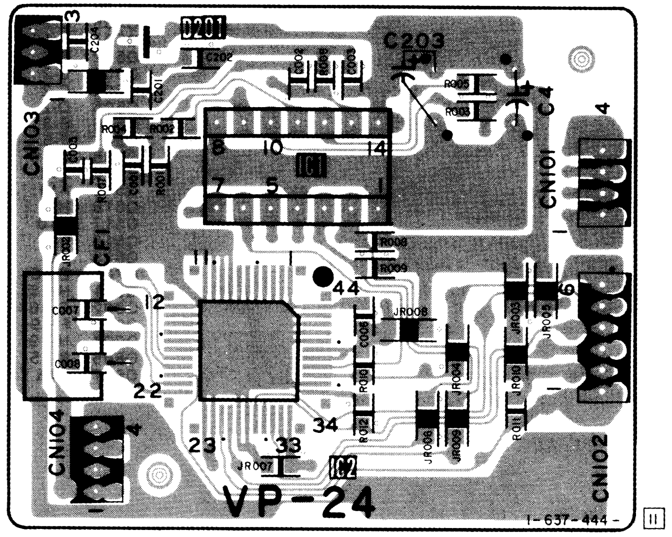
IC

IC810 8-759-602-49 IC M5201P
IC812 8-759-040-70 IC MC14070BCP

SI-10 BOARD


IC810
C848
CN801
C847
IC812
1-635-225-
12

VP-24 BOARD


D201
C203
CN103
CN101
CN104
CN102
IC1
IC2
VP-24
1-637-444-
11

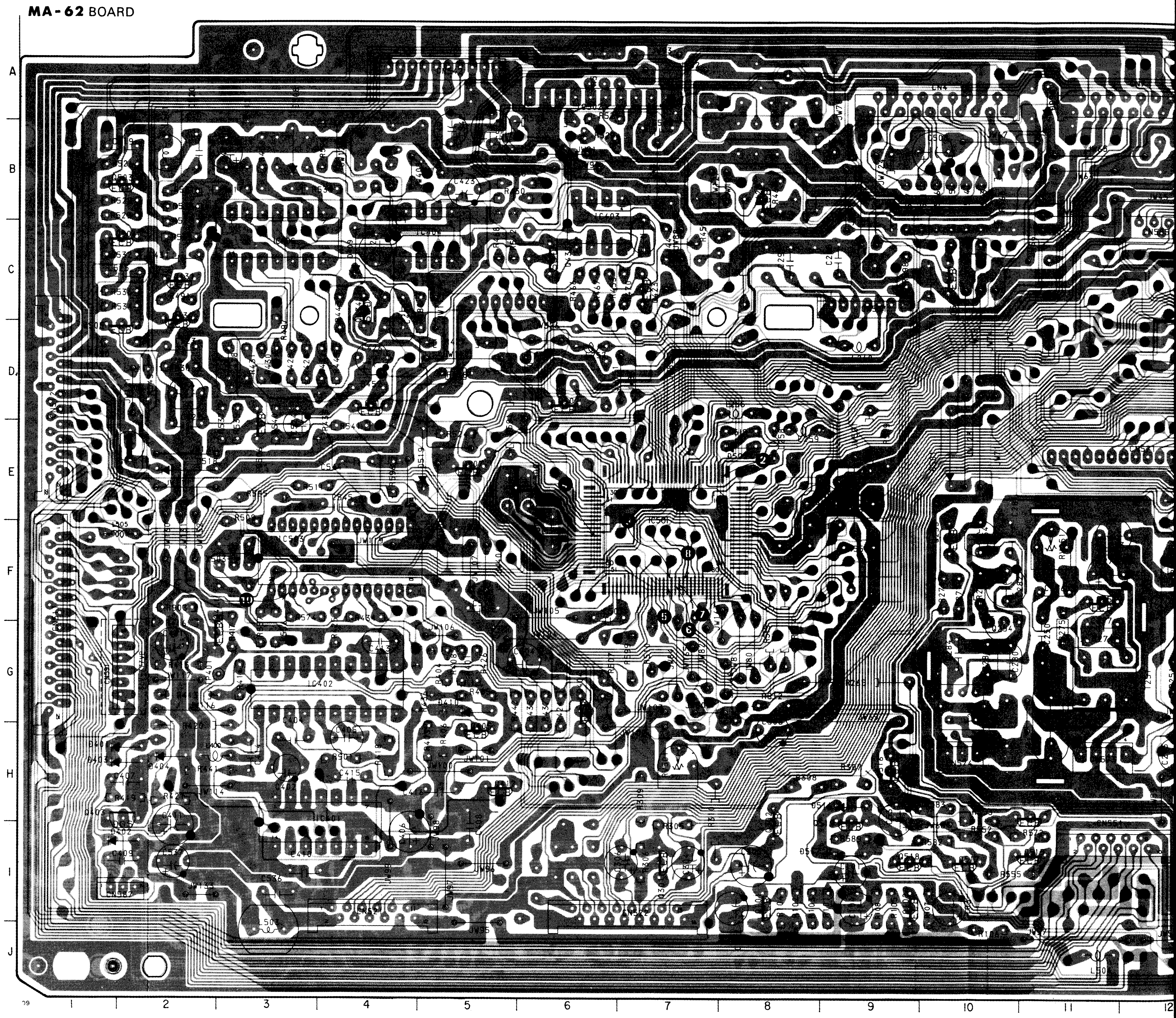
DIODE

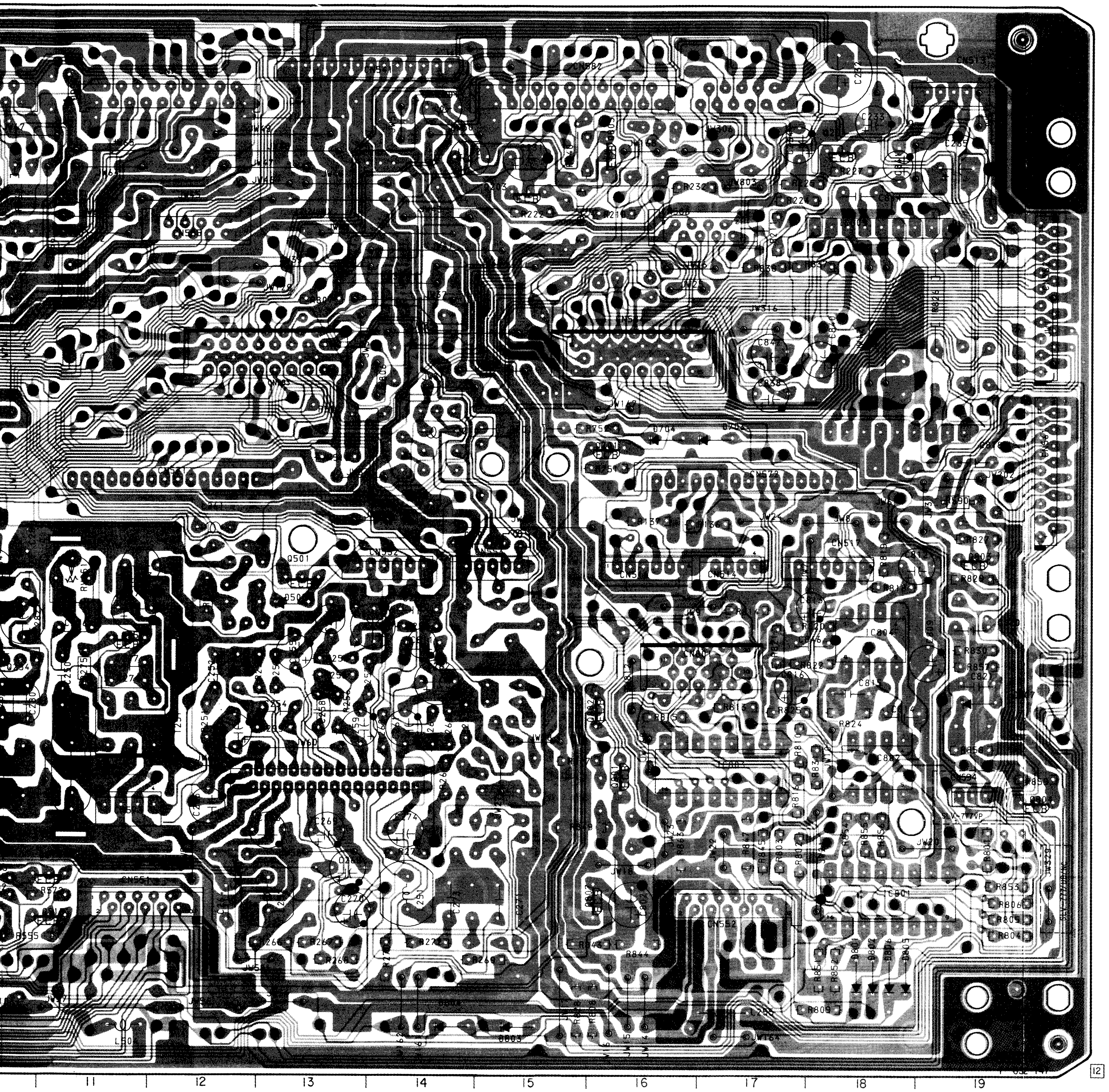
D201 8-719-400-18 DIODE 1S2837

MA-62 (SERVO, SYSTEM CONTROL, AUDIO), SI-10 (SIMULCAST), VP-24 (VPS) PRINTED WIRING BOARDS

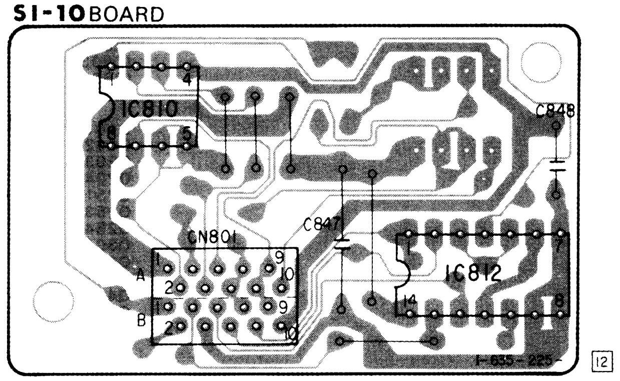
— Ref. No. SI-10 BOARD: 3000 series, MA-62 BOARD: 7000 series, VP-24 BOARD: 10000 series —

MA-62 BOARD	
D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	C-4
D410	H-5
D501	E-10
D502	E-8
D505	F-13
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D703	E-17
D704	E-16
D801	I-18
D802	I-18
D803	G-15
D804	G-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	G-3
IC403	C-6
IC404	C-5
IC406	C-3
IC501	F-7
IC502	B-6
IC503	F-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	G-18
IC809	C-18
Q101	I-8
Q102	I-9
Q203	B-15
Q204	B-8
Q251	G-11
Q253	F-10
Q254	G-10
Q301	I-7
Q302	I-8
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	C-7
Q428	C-8
Q430	D-2
Q431	C-2
Q432	D-4
Q435	C-6
Q501	F-13
Q502	E-6
Q503	B-2
Q504	C-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	C-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	G-16
Q803	F-19
Q804	H-19
Q805	B-15
Q807	I-16

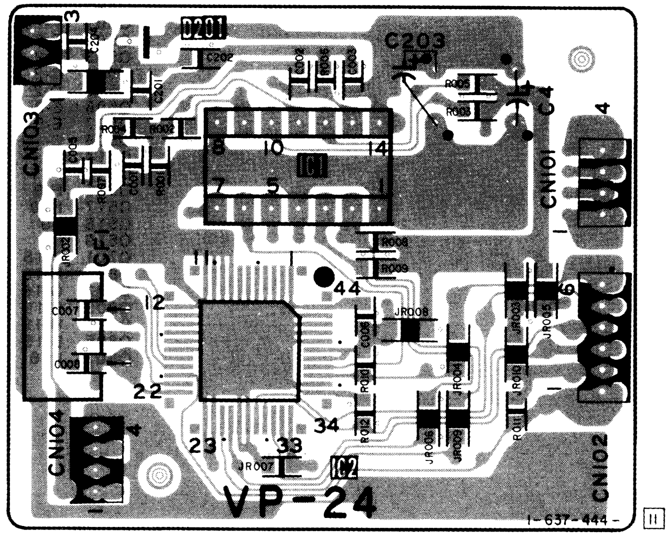



11
12
13
14
15
16
17
18
19
12

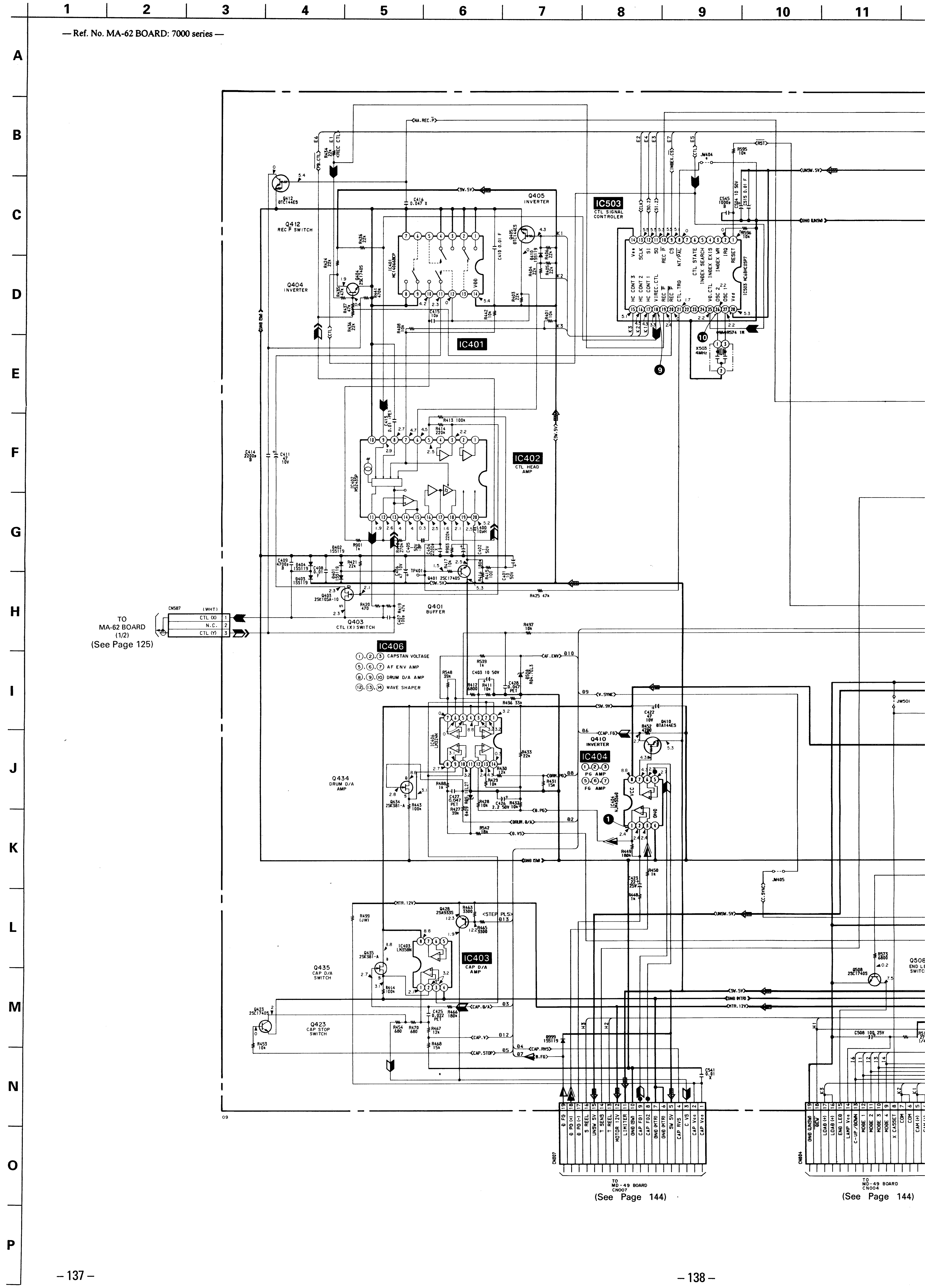
SI-10 BOARD

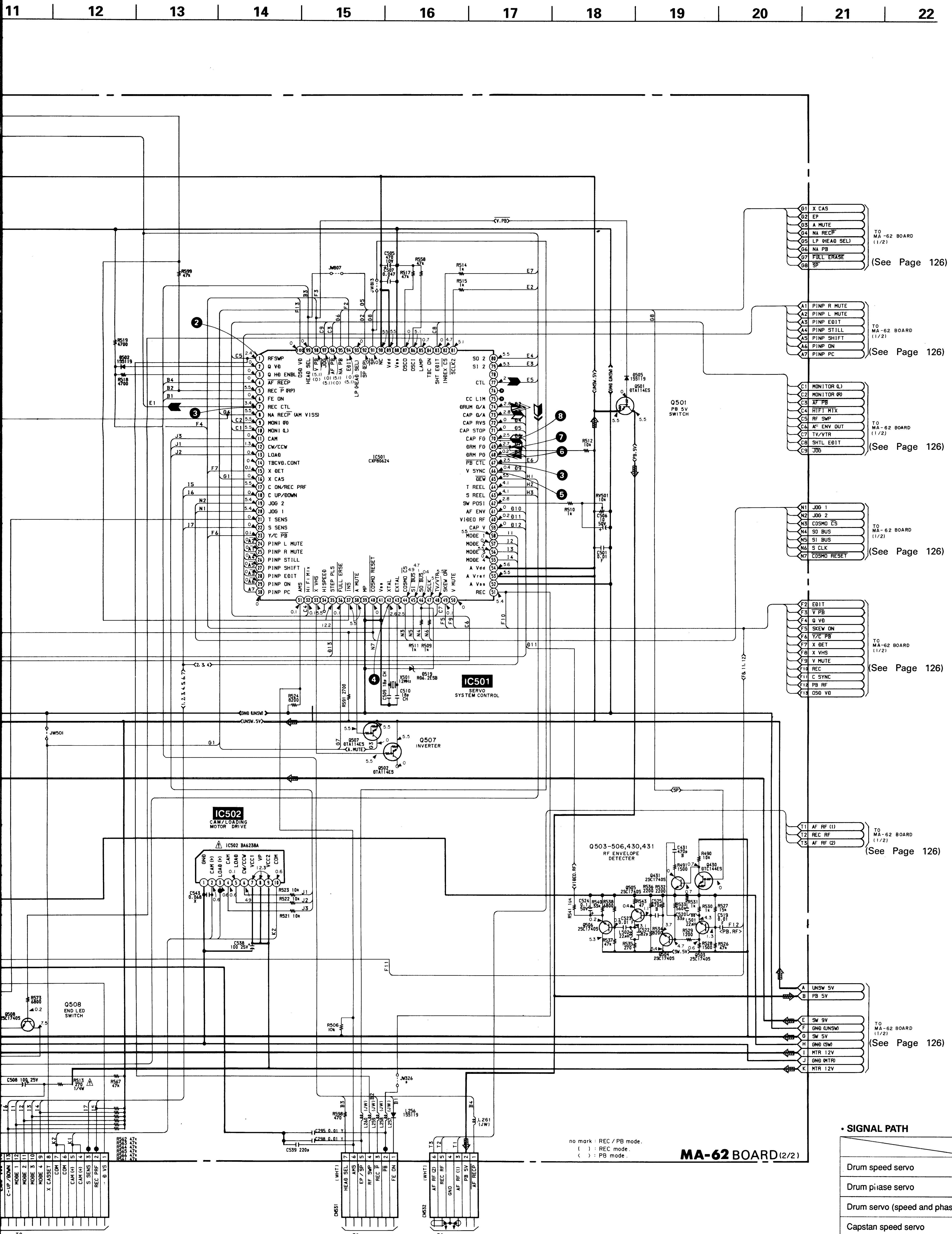

IC810
C848
C847
CN801
IC812
A
B
20
9
10
1-655-225-
12

VP-24 BOARD


CN103
C203
CN101
CN104
CN102
12
22
23
33
34
44
VP-24
1-637-444-
11

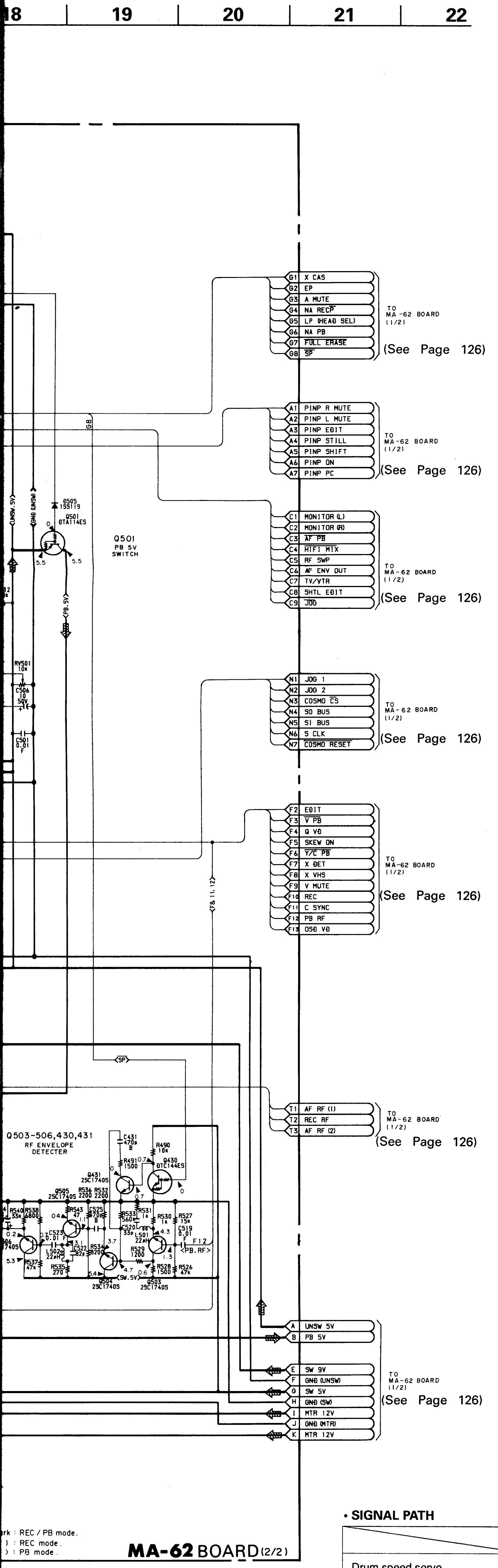
— Ref. No. MA-62 BOARD: 7000 series —


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
IC503
CTL SIGNAL CONTROLER
IC401
IC402
CTL HEAD AMP
IC406
①,②,③ CAPSTAN VOLTAGE
⑤,⑥,⑦ AF ENV AMP
⑧,⑨,⑩ DRUM D/A AMP
⑫,⑬,⑭ WAVE SHAPER
IC404
①,②,③ PG AMP
⑤,⑥,⑦ FG AMP
IC403
CAP D/A AMP
Q412
REC P SWITCH
Q404
INVERTER
Q405
INVERTER
Q401
BUFFER
Q403
CTL (X) SWITCH
Q410
INVERTER
Q434
DRUM D/A AMP
Q435
CAP D/A SWITCH
Q423
CAP STOP SWITCH
Q508
END LE SWITC
CN587
(WHT)
CTL (X)
N.C.
CTL (Y)
TO MA-62 BOARD (1/2) (See Page 125)
MA.REC.P
SW.5V
UNSW.5V
GND UNSW
RST
REC CTL
PB.CTL
CTL
CLK
SO
SI
INDEX.CS
AF.ENV
V.SYNC
SW.9V
CAP.FG
DRUM.PG
D.PG
DRUM.D/A
D.VS
GND (SW)
MTR.12V
STEP PLS
CAP.D/A
CAP.V
CAP.STOP
CAP.RVS
D.FG
C.SYNC
GND (MTR)
X503 4MHz
CN007
D FG
D PG (+)
D PG (-)
S REEL
UNSW 5V
T SENS
T REEL
MOTOR 12V
LIMITER
GND (SW)
CAP FG1
CAP FG2
GND (MTR)
GND (MTR)
SW 5V
CAP RVS
C VS
CAP Vcc
CAP Vcc
TO MD-49 BOARD CN007 (See Page 144)
CN004
GND UNSW
REW
LOAD (+)
LOAD (-)
END LED
LAMP Vcc
C-UP/DOWN
MODE 1
MODE 2
MODE 3
MODE 4
X CASSET
COM
TO MD-49 BOARD CN004 (See Page 144)

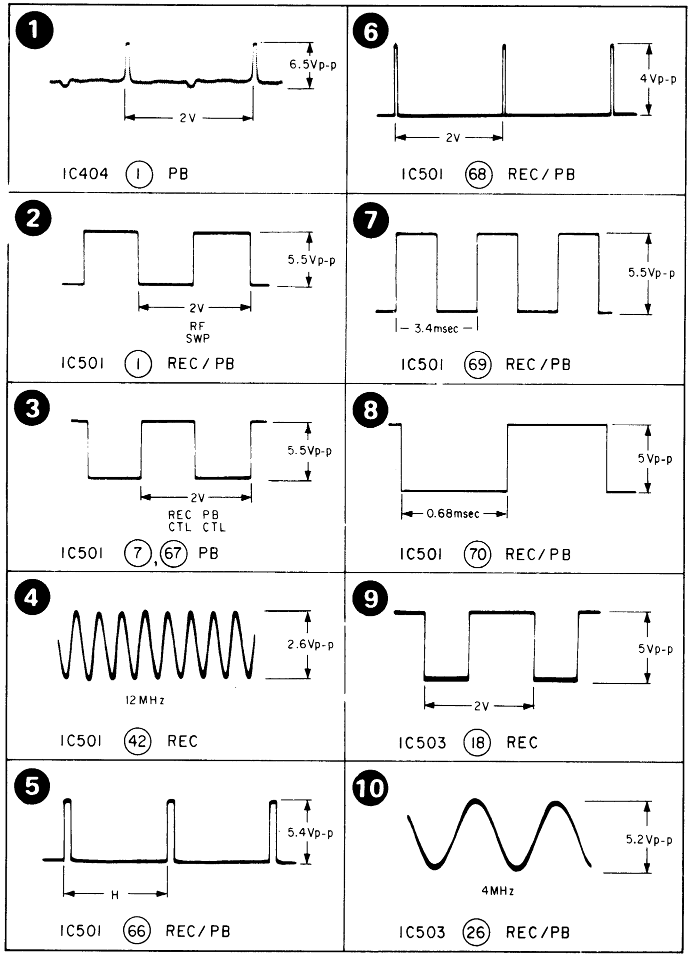

IC501
SERVO
SYSTEM CONTROL
IC501 CXP80624
IC502
CAM/LOADING
MOTOR DRIVE
IC502 BA6238A
Q501
PB 5V
SWITCH
Q507
INVERTER
Q508
END LED
SWITCH
Q503-506,430,431
RF ENVELOPE
DETECTER
X CAS
EP
A MUTE
NA RECP
LP (HEAD SEL)
NA PB
FULL ERASE
SP
TO MA-62 BOARD (1/2)
(See Page 126)
PINP R MUTE
PINP L MUTE
PINP EDIT
PINP STILL
PINP SHIFT
PINP ON
PINP PC
MONITOR (L)
MONITOR (R)
AF PB
HIFI MIX
RF SWP
A° ENV OUT
TV/VTR
SHTL EDIT
JOG
JOG 1
JOG 2
COSMO CS
SO BUS
SI BUS
S CLK
COSMO RESET
EDIT
V PB
Q VD
SKEW ON
Y/C PB
X DET
X VHS
V MUTE
REC
C SYNC
PB RF
OSD VD
AF RF (1)
REC RF
AF RF (2)
UNSW 5V
PB 5V
SW 9V
GND (UNSW)
SW 5V
GND (SW)
MTR 12V
GND (MTR)
MTR 12V
TO MD-49 BOARD CN004
(See Page 144)
TO RP-63 BOARD CN803
(See Page 101)
TO RP-63 BOARD CN101
(See Page 100)
HEAD SEL
AMS
EP SP
RF SWP
REC P
PB
FE ON
AF RF (2)
REC RF
GND
AF RF (1)
PB 5V
AF RECP
no mark : REC / PB mode.
( ) : REC mode.
〈 〉 : PB mode.
MA-62 BOARD (2/2)

• SIGNAL PATH

Drum speed servo
Drum phase servo
Drum servo (speed and phase)
Capstan speed servo
Capstan phase servo
Capstan servo (speed and phase)
Ref. signal


18
19
20
21
22
G1 X CAS
G2 EP
G3 A MUTE
G4 NA RECP
G5 LP (HEAD SEL)
G6 NA PB
G7 FULL ERASE
G8 SP
TO MA-62 BOARD (1/2)
(See Page 126)
A1 PINP R MUTE
A2 PINP L MUTE
A3 PINP EDIT
A4 PINP STILL
A5 PINP SHIFT
A6 PINP ON
A7 PINP PC
TO MA-62 BOARD (1/2)
(See Page 126)
C1 MONITOR (L)
C2 MONITOR (R)
C3 AF PB
C4 HIFI MIX
C5 RF SWP
C6 AF ENV OUT
C7 TV/VTR
C8 SHTL EDIT
C9 JOG
TO MA-62 BOARD (1/2)
(See Page 126)
N1 JOG 1
N2 JOG 2
N3 COSMO CS
N4 SO BUS
N5 SI BUS
N6 S CLK
N7 COSMO RESET
TO MA-62 BOARD (1/2)
(See Page 126)
F2 EDIT
F3 V PB
F4 Q VD
F5 SKEW ON
F6 Y/C PB
F7 X DET
F8 X VHS
F9 V MUTE
F10 REC
F11 C SYNC
F12 PB RF
F13 OSD VD
TO MA-62 BOARD (1/2)
(See Page 126)
T1 AF RF (1)
T2 REC RF
T3 AF RF (2)
TO MA-62 BOARD (1/2)
(See Page 126)
A UNSW 5V
B PB 5V
E SW 9V
F GND (UNSW)
G SW 5V
H GND (SW)
I MTR 12V
J GND (MTR)
K MTR 12V
TO MA-62 BOARD (1/2)
(See Page 126)
D505 1SS119
Q501 DTA114ES
Q501 PB 5V SWITCH
(UNSW 5V)
(PB 5V)
RV501 10k
C506 10 50V
C501 0.01 F
G8
(F8, 11, 12)
(SP)
Q503-506,430,431 RF ENVELOPE DETECTER
C431 470p
R490 10k
R491 1500
Q430 DTC144ES
Q431 2SC1740S
Q505 2SC1740S
R536 2200
R532 2200
R540 33k
R538 6800
R543 47
C525 470p
R531 1k
R533 560
R530 1k
R527 15k
C520 33p
L501 22μH
C519 0.01
C523 0.01
L502 22μH
C522 82p
R534 8200
R529 1200
R528 1500
R526 47k
R537 47k
R535 270
Q504 2SC1740S
Q503 2SC1740S
F12 (PB.RF)
(SW.5V)
rk : REC / PB mode.
) : REC mode.
) : PB mode.
MA-62 BOARD (2/2)

MA-62 BOARD

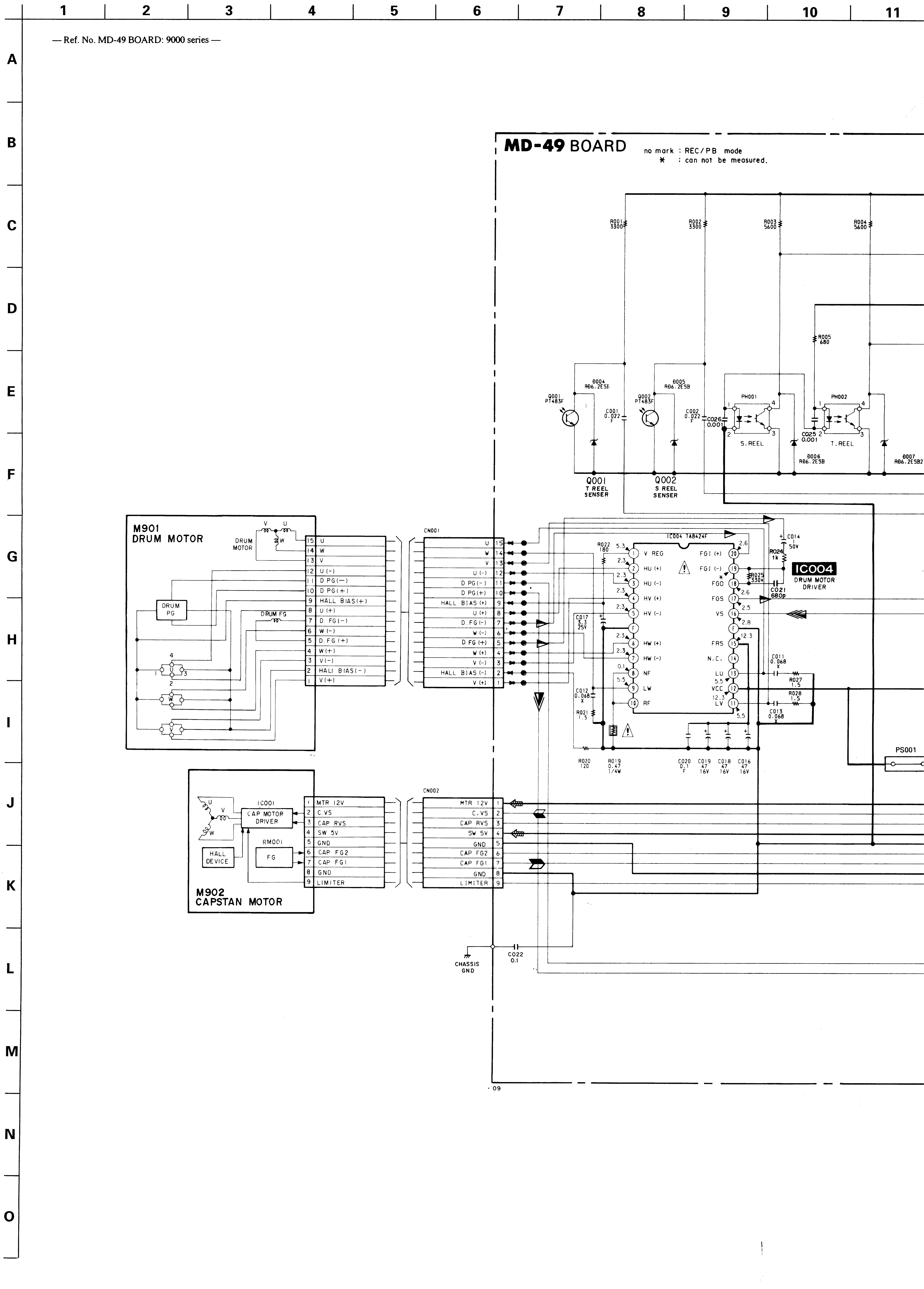

1
6.5Vp-p
2V
IC404 ① PB
2
5.5Vp-p
2V
RF SWP
IC501 ① REC/PB
3
5.5Vp-p
2V
REC PB CTL CTL
IC501 ⑦, ㊼ PB
4
2.6Vp-p
12MHz
IC501 ㊷ REC
5
5.4Vp-p
H
IC501 ㊻ REC/PB
6
4Vp-p
2V
IC501 ㊽ REC/PB
7
5.5Vp-p
3.4msec
IC501 ㊾ REC/PB
8
5Vp-p
0.68msec
IC501 (70) REC/PB
9
5Vp-p
2V
IC503 ⑱ REC
10
5.2Vp-p
4MHz
IC503 ㉖ REC/PB

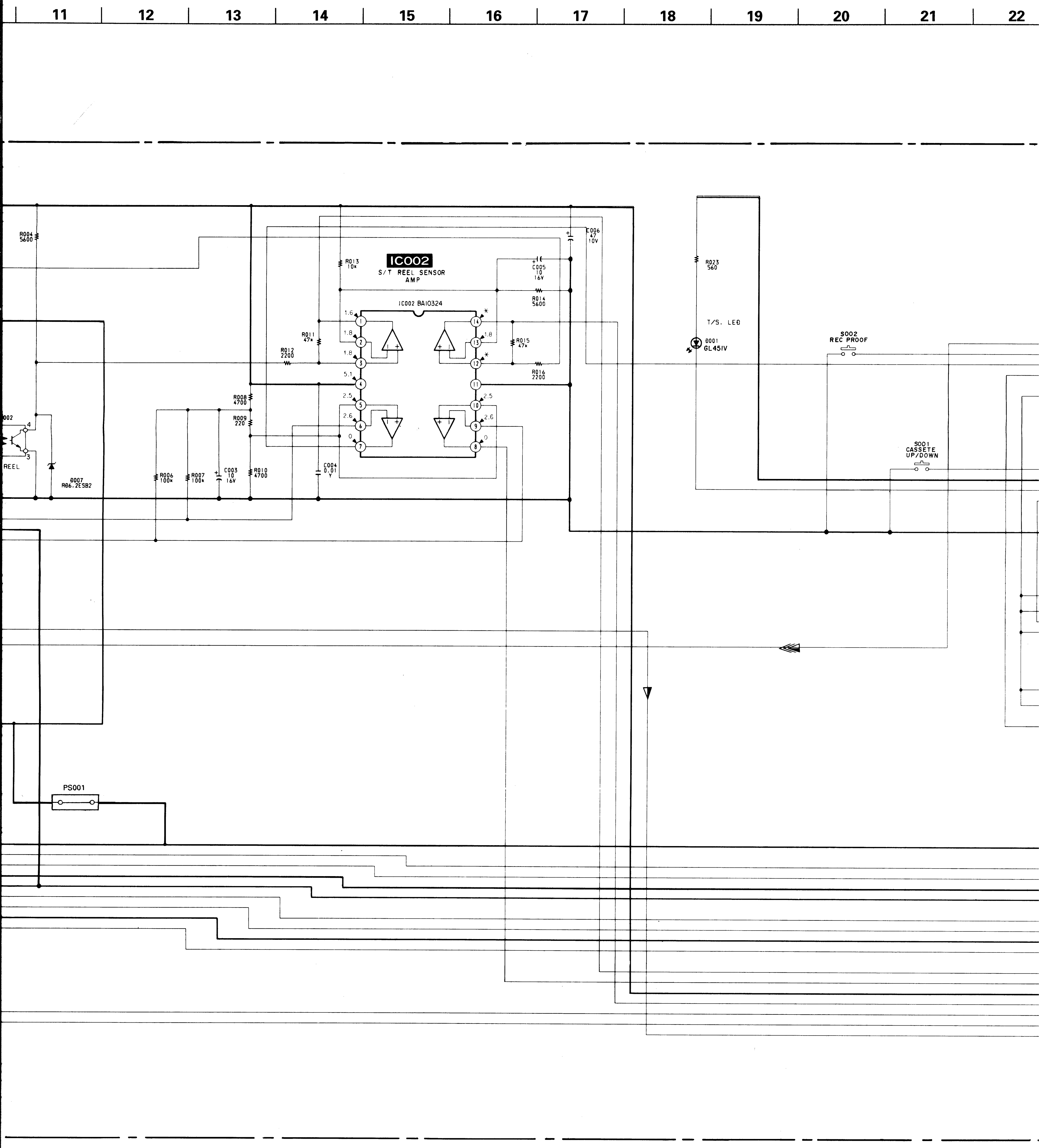
- **SIGNAL PATH**

	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷▷	
Drum servo (speed and phase)		▷▷▷	
Capstan speed servo		➩	
Capstan phase servo		➩〉	
Capstan servo (speed and phase)		➩〉〉	
Ref. signal	➤		

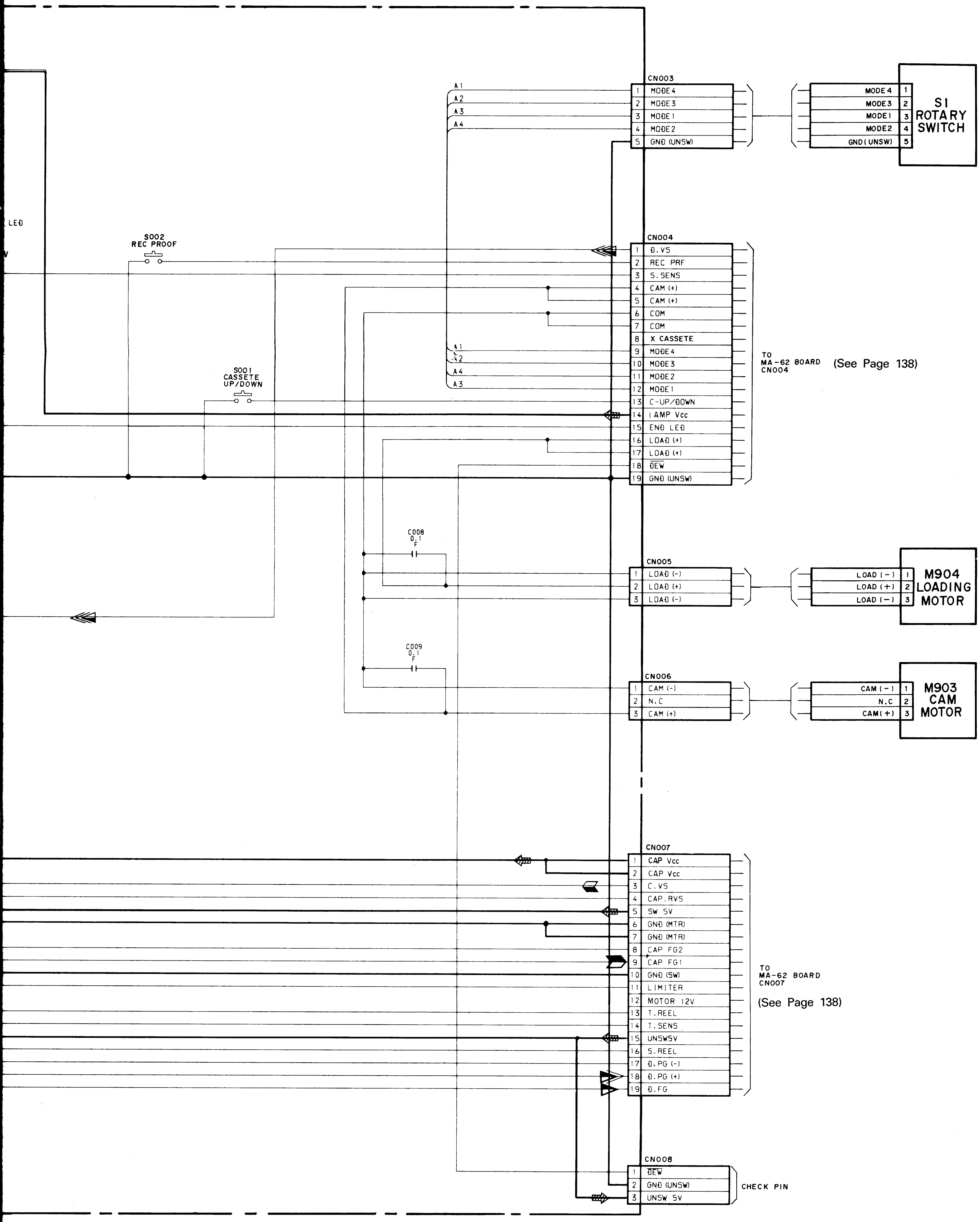
MD-49 (MECHANISM DRIVE) SCHEMATIC DIAGRAM

— Ref. No. MD-49 BOARD: 9000 series —


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
MD-49 BOARD
no mark : REC/PB mode
∗ : can not be measured.
R001 3300
R002 3300
R003 5600
R004 5600
R005 680
D004 RD6.2ESB
D005 RD6.2ESB
Q001 PT483F
Q002 PT483F
C001 0.022 F
C002 0.022 F
C026 0.001
C025 0.001
PH001
PH002
S.REEL
T.REEL
D006 RD6.2ESB
D007 RD6.2ESB2
Q001 T REEL SENSER
Q002 S REEL SENSER
M901 DRUM MOTOR
DRUM MOTOR
DRUM PG
DRUM FG
CN001
U
W
V
U(-)
D PG(-)
D PG(+)
HALL BIAS(+)
U(+)
D FG(-)
W(-)
D FG(+)
W(+)
V(-)
HALL BIAS(-)
V(+)
IC004 TA8424F
IC004 DRUM MOTOR DRIVER
V REG
HU(+)
HU(-)
HV(+)
HV(-)
F
HW(+)
HW(-)
NF
LW
RF
FG1(+)
FG1(-)
FGO
FGS
VS
FRS
N.C.
LU
VCC
LV
R022 180
R024 1k
R025 330k
C014 1 50V
C021 680p
C017 3.3 25V
C012 0.068 X
R021 1.5
C011 0.068 X
R027 1.5
R028 1.5
C013 0.068 X
R020 120
R019 0.47 1/4W
C020 0.1 F
C019 47 16V
C018 47 16V
C016 47 16V
PS001
M902 CAPSTAN MOTOR
IC001 CAP MOTOR DRIVER
HALL DEVICE
RM001
FG
CN002
MTR 12V
C.VS
CAP RVS
SW 5V
GND
CAP FG2
CAP FG1
GND
LIMITER
CHASSIS GND
C022 0.1


11
12
13
14
15
16
17
18
19
20
21
22
R004
5600
R013
10k
IC002
S/T REEL SENSOR
AMP
C005
10
16V
C006
47
10V
R014
5600
IC002 BA10324
R011
47k
R012
2200
1.6
1.8
1.8
5.1
2.5
2.6
0
1
2
3
4
5
6
7
14
13
12
11
10
9
8
1.8
2.5
2.6
0
R015
47k
R016
2200
R008
4700
R009
220
002
4
3
REEL
D007
R06.2ESB2
R006
100k
R007
100k
C003
10
16V
R010
4700
C004
0.01
Y
R023
560
T/S. LED
D001
GL451V
S002
REC PROOF
S001
CASSETE
UP/DOWN
PS001

MECHANISM DRI


CN003
1 MODE4
2 MODE3
3 MODE1
4 MODE2
5 GND (UNSW)
A1
A2
A3
A4
MODE4 1
MODE3 2
MODE1 3
MODE2 4
GND (UNSW) 5
S1
ROTARY
SWITCH
LED
S002
REC PROOF
S001
CASSETE
UP/DOWN
CN004
1 Ð.VS
2 REC PRF
3 S.SENS
4 CAM (+)
5 CAM (+)
6 COM
7 COM
8 X CASSETE
9 MODE4
10 MODE3
11 MODE2
12 MODE1
13 C-UP/DOWN
14 LAMP Vcc
15 END LED
16 LOAD (+)
17 LOAD (+)
18 DEW
19 GND (UNSW)
TO
MA-62 BOARD
CN004
(See Page 138)
C008
0.1
F
CN005
1 LOAD (-)
2 LOAD (+)
3 LOAD (-)
LOAD (-) 1
LOAD (+) 2
LOAD (-) 3
M904
LOADING
MOTOR
C009
0.1
F
CN006
1 CAM (-)
2 N.C
3 CAM (+)
CAM (-) 1
N.C 2
CAM (+) 3
M903
CAM
MOTOR
CN007
1 CAP Vcc
2 CAP Vcc
3 C.VS
4 CAP.RVS
5 SW 5V
6 GND (MTR)
7 GND (MTR)
8 CAP FG2
9 CAP FG1
10 GND (SW)
11 LIMITER
12 MOTOR 12V
13 T.REEL
14 T.SENS
15 UNSW5V
16 S.REEL
17 Ð.PG (-)
18 Ð.PG (+)
19 Ð.FG
TO
MA-62 BOARD
CN007
(See Page 138)
CN008
1 DEW
2 GND (UNSW)
3 UNSW 5V
CHECK PIN

• SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷	
Drum servo (speed and phase)		⋙	
Capstan speed servo		➡	
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal			

MD-49 (MECHANISM DRIVE) PRINTED WIRING BOARD

— Ref. No. MD-49 BOARD: 9000 series —

DIODE

D001	8-719-974-65	DIODE GL451V (LED)
D004	8-719-109-93	DIODE RD6. 2ESB2
D005	8-719-109-93	DIODE RD6. 2ESB2
D006	8-719-109-93	DIODE RD6. 2ESB2
D007	8-719-109-93	DIODE RD6. 2ESB2

IC

IC002	8-759-938-12	IC BA10324
IC004⚠	8-759-234-03	IC TA8424F

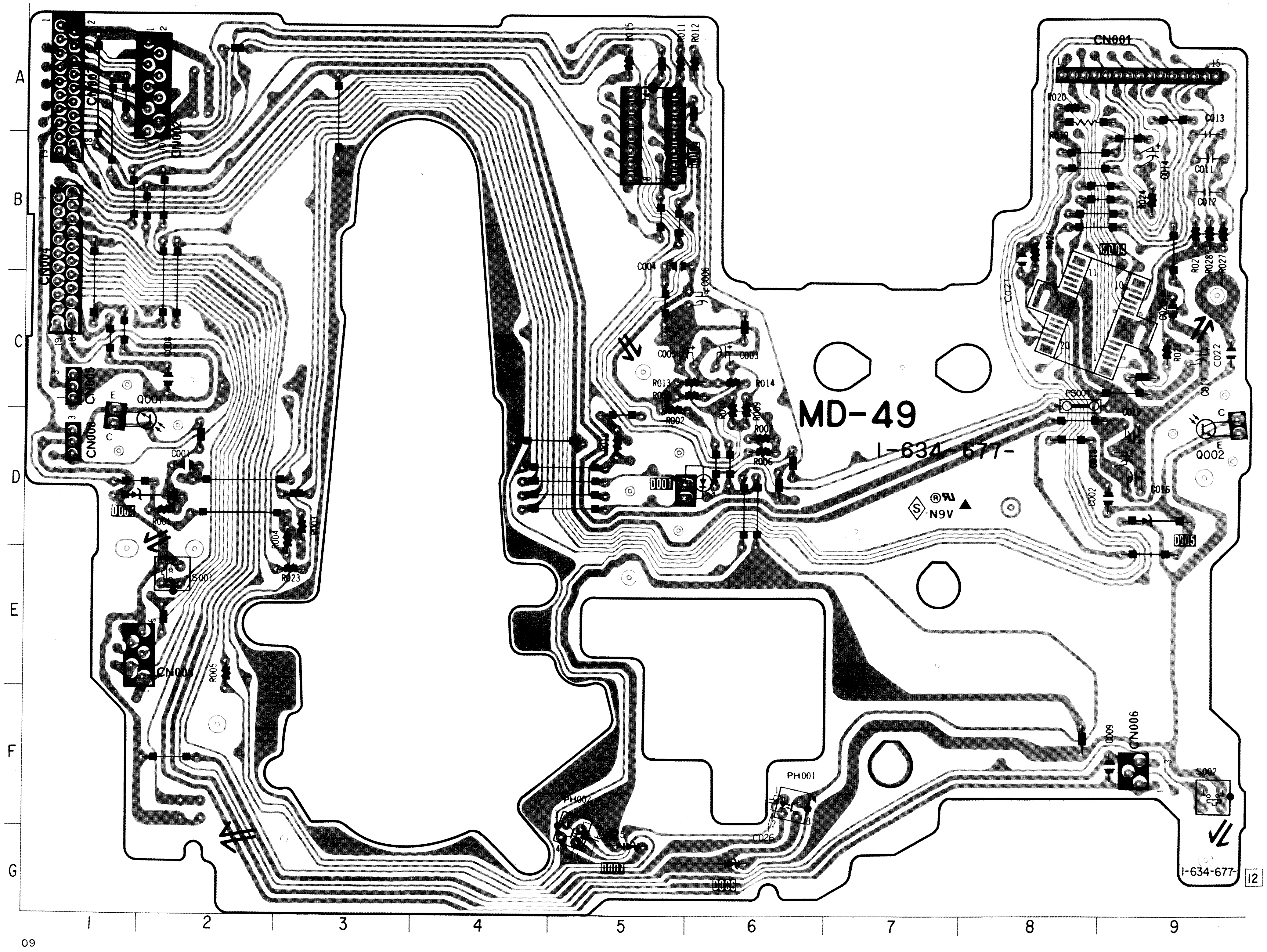
TRANSISTOR

Q001	8-729-921-53	PHOTO TRANSISTOR PT483F1
Q002	8-729-921-53	PHOTO TRANSISTOR PT483F1

MD-49 BOARD

D001	D-5
D002	C-2
D003	C-2
D004	D-1
D005	D-9
IC002	A-5
IC004	C-8
Q001	C-1
Q002	C-9

MD-49 BOARD


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
CN001
CN002
CN003
CN004
CN005
CN006
CN007
CN008
Q001
Q002
S001
S002
PS001
PH001
PH002
IC002
IC004
D001
D002
D003
D004
D005
MD-49
1-634-677-
N9V
1-634-677-
12
09

HF-9 (Hi-Fi AUDIO) PRINTED WIRING BOARD

— Ref. No. HF-9 BOARD: 1000 series —

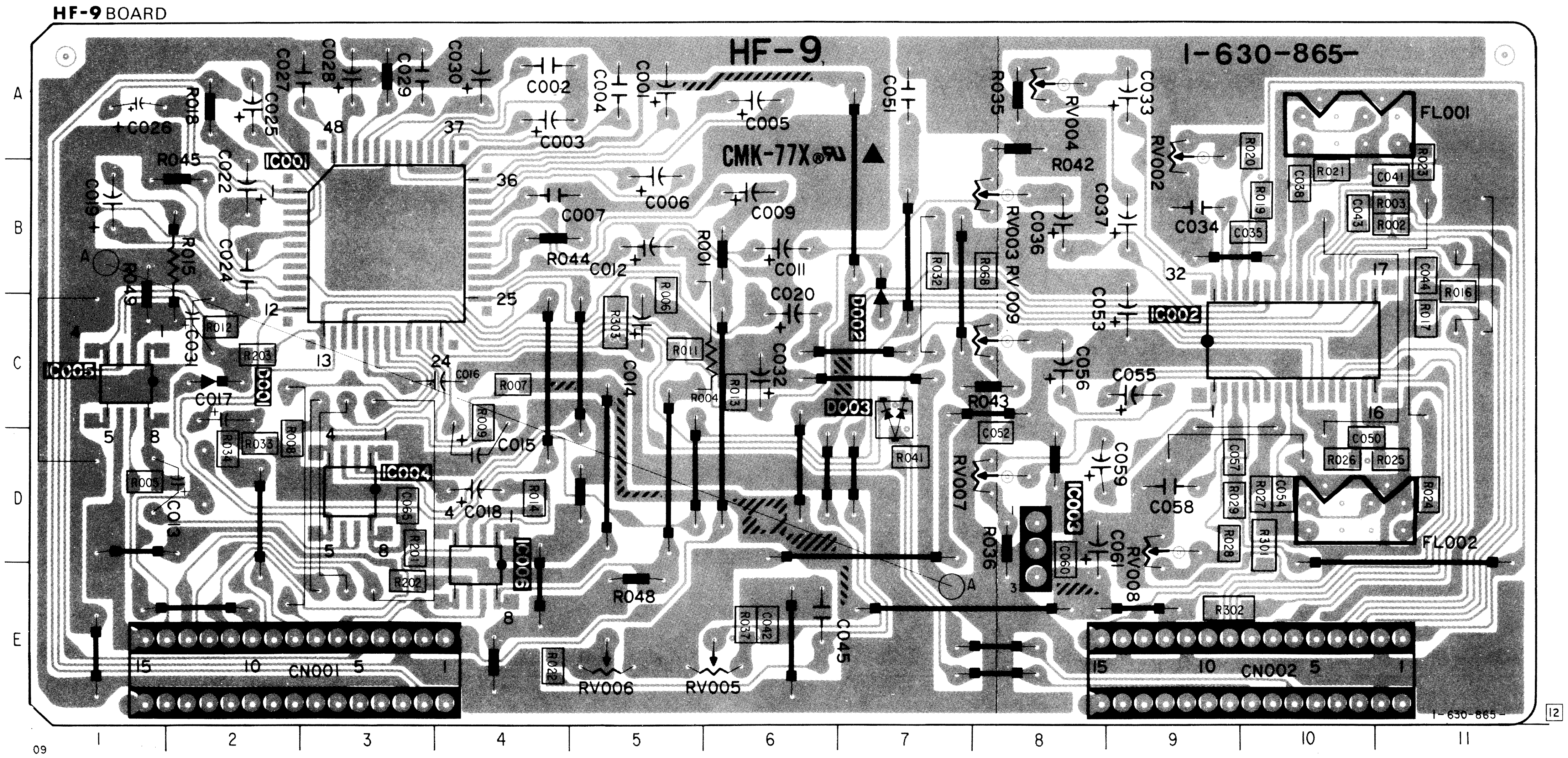
DIODE

D001	8-719-911-19	DIODE 1SS119
D002	8-719-911-19	DIODE 1SS119
D003	8-719-104-34	DIODE 1S2835

IC

IC001	8-759-420-18	IC AN3972FC
IC002	8-759-420-15	IC AN3932S
IC003	8-759-982-21	IC RC78L05A
IC004	8-759-924-46	IC BA4560F
IC005	8-759-946-44	IC TK15120M
IC006	8-759-946-44	IC TK15120M

HF-9 BOARD

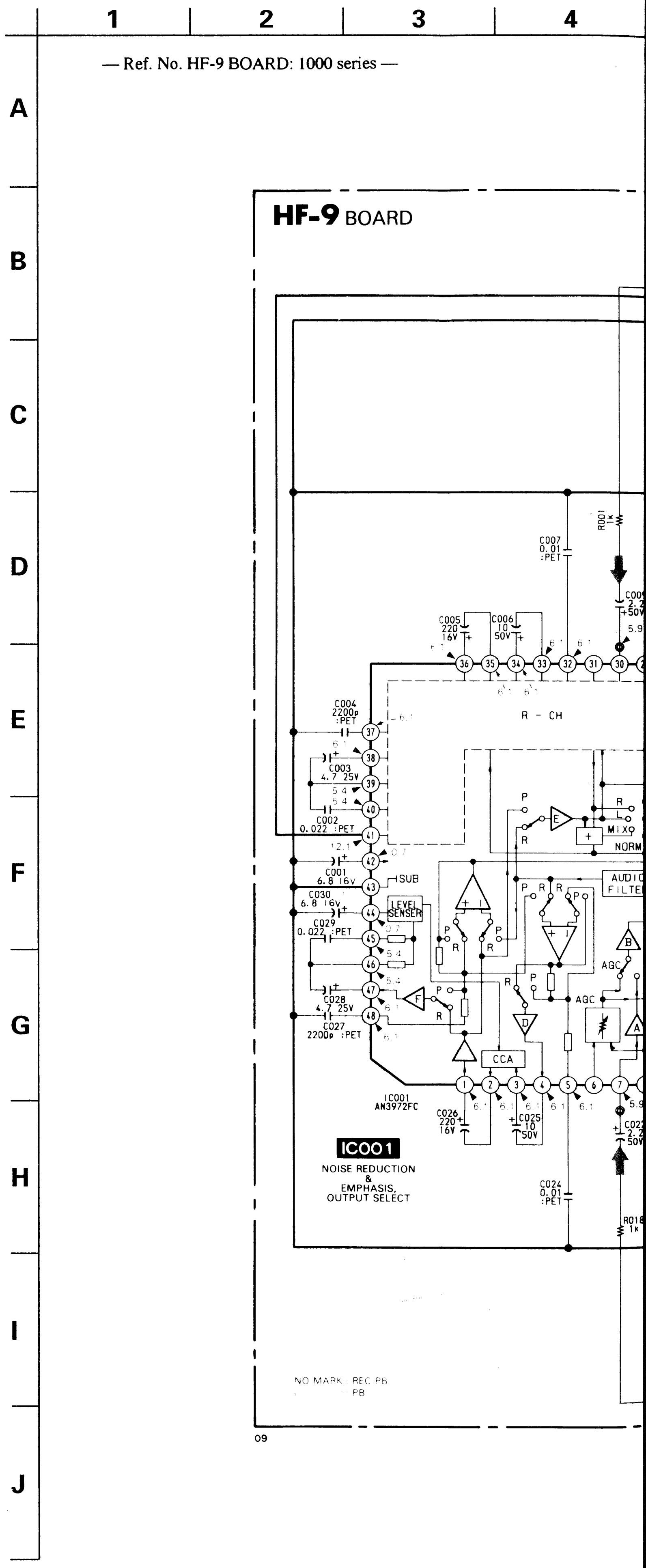

HF-9
1-630-865-
CMK-77X
IC001
IC002
IC003
IC004
IC005
D001
D002
D003
FL001
FL002
CN001
CN002
RV002
RV003
RV004
RV005
RV006
RV007
RV008
RV009
A
B
C
D
E
1
2
3
4
5
6
7
8
9
10
11
09
12

HF-9 BOARD

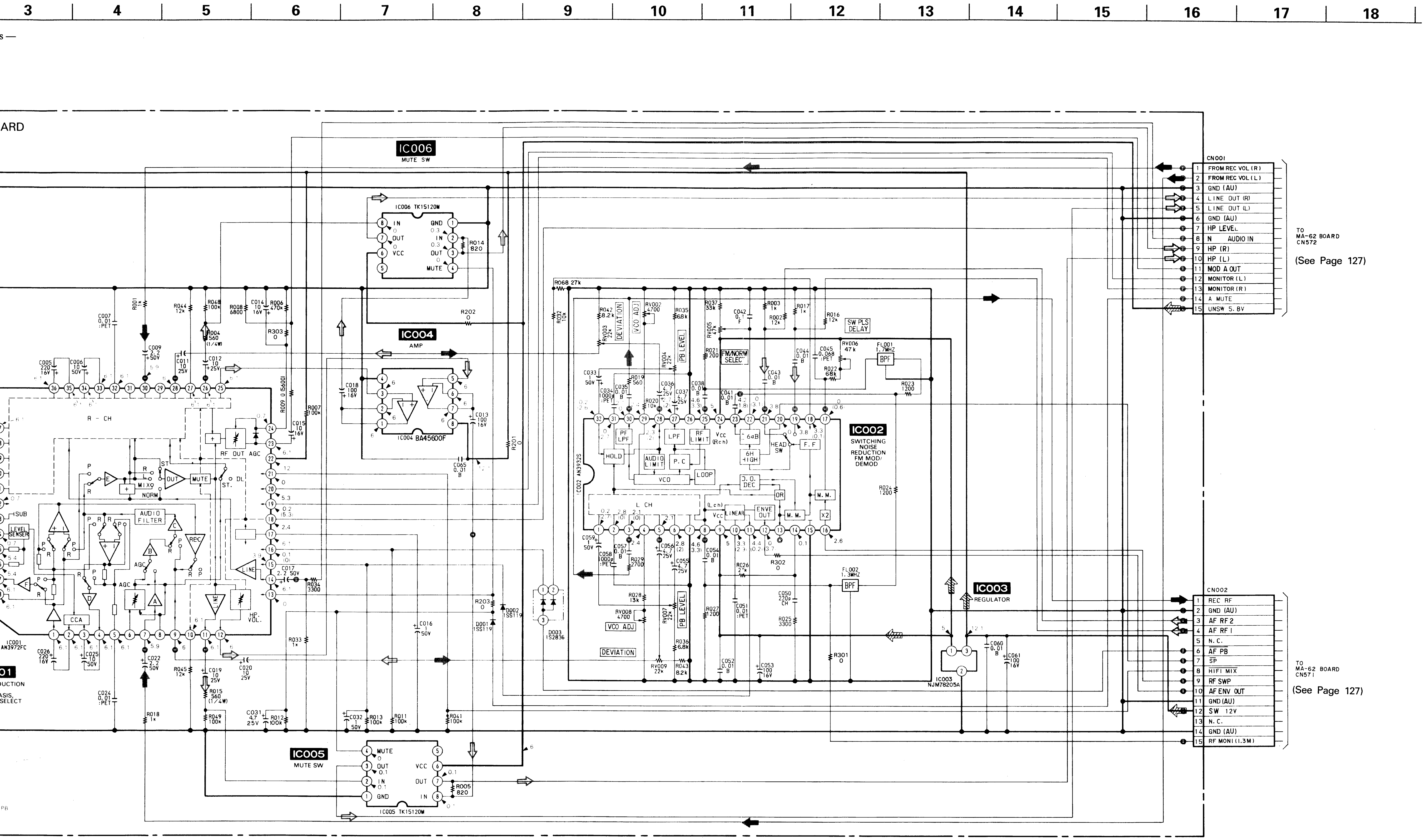
D001	C-2
D002	C-7
D003	C-7
IC001	B-3
IC002	C-10
IC003	D-8
IC004	D-3
IC005	C-1
IC006	D-4

HF-9 (Hi-Fi AUDIO) SCHEMATIC DIAGRAM

— Ref. No. HF-9 BOARD: 1000 series —


1
2
3
4
A
B
C
D
E
F
G
H
I
J
HF-9 BOARD
R - CH
IC001
AN3972FC
IC001
NOISE REDUCTION & EMPHASIS, OUTPUT SELECT
LEVEL SENSER
MIX
NORM
AUDIO FILTER
AGC
CCA
NO MARK : REC PB
09

GRAM


3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
s —
ARD
IC006
MUTE SW
IC006 TK15120M
IN
OUT
VCC
GND
IN
OUT
MUTE
R014 820
IC004
AMP
IC004 BA4560OF
R202 0
R201 0
C065 0.01 B
IC002
SWITCHING NOISE REDUCTION FM MOD/ DEMOD
IC002 AN3932S
R068 27k
DEVIATION
VCO ADJ
PB LEVEL
FM/NORM SELEC
SW PLS DELAY
FL001 1.7MHz
BPF
PF LPF
LPF
RF LIMIT
HOLD
AUDIO LIMIT
P.C
VCO
LOOP
6dB
6H HIGH
HEAD SW
F.F
J.O. DEC
OR
M.M.
X2
L CH
LINEAR
ENVE OUT
FL002 1.3MHz
BPF
IC003
REGULATOR
IC003 NJM78205A
IC005
MUTE SW
IC005 TK15120M
R005 820
IC001 AN3972FC
R - CH
RF OUT AGC
MUTE
MIX
NORM
AUDIO FILTER
AGC
LINE
HP-VOL.
CCA
LEVEL SENSER
SUB
REC
D002 1SS119
D001 1SS119
D003 1S2836
CN001
1 FROM REC VOL (R)
2 FROM REC VOL (L)
3 GND (AU)
4 LINE OUT (R)
5 LINE OUT (L)
6 GND (AU)
7 HP LEVEL
8 N AUDIO IN
9 HP (R)
10 HP (L)
11 MOD A OUT
12 MONITOR (L)
13 MONITOR (R)
14 A MUTE
15 UNSW 5.8V
TO MA-62 BOARD CN572
(See Page 127)
CN002
1 REC RF
2 GND (AU)
3 AF RF 2
4 AF RF 1
5 N.C.
6 AF PB
7 SP
8 HIFI MIX
9 RF SWP
10 AF ENV OUT
11 GND (AU)
12 SW 12V
13 N.C.
14 GND (AU)
15 RF MONI (1.3M)
TO MA-62 BOARD CN571
(See Page 127)

• SIGNAL PATH

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC				➡
PB				⇨

IO-40 (TERMINAL) PRINTED WIRING BOARD

— Ref. No. IO-40 BOARD: 7000 series —

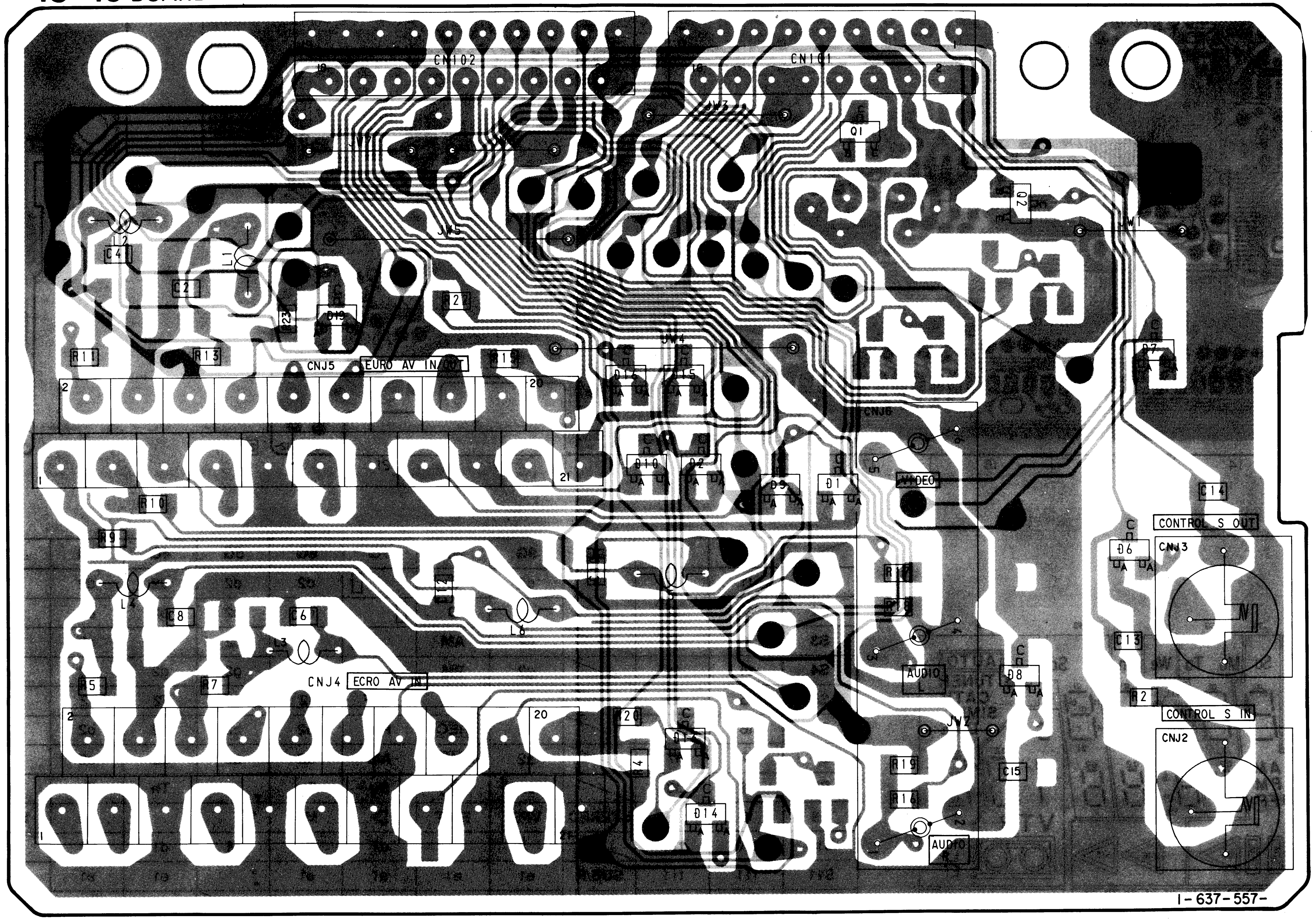
DIODE

D001	8-719-106-08	DIODE RD6. 2M-B2
D002	8-719-106-08	DIODE RD6. 2M-B2
D006	8-719-106-08	DIODE RD6. 2M-B2
D007	8-719-106-08	DIODE RD6. 2M-B2
D008	8-719-106-08	DIODE RD6. 2M-B2
D009	8-719-106-08	DIODE RD6. 2M-B2
D010	8-719-106-08	DIODE RD6. 2M-B2
D013	8-719-106-08	DIODE RD6. 2M-B2
D014	8-719-106-08	DIODE RD6. 2M-B2
D015	8-719-106-08	DIODE RD6. 2M-B2
D016	8-719-106-08	DIODE RD6. 2M-B2
D019	8-719-157-61	DIODE RD15M-T1B

TRANSISTOR

Q001	8-729-901-06	TRANSISTOR DTA144EK
Q002	8-729-901-01	TRANSISTOR DTC144EK

IO-40 BOARD

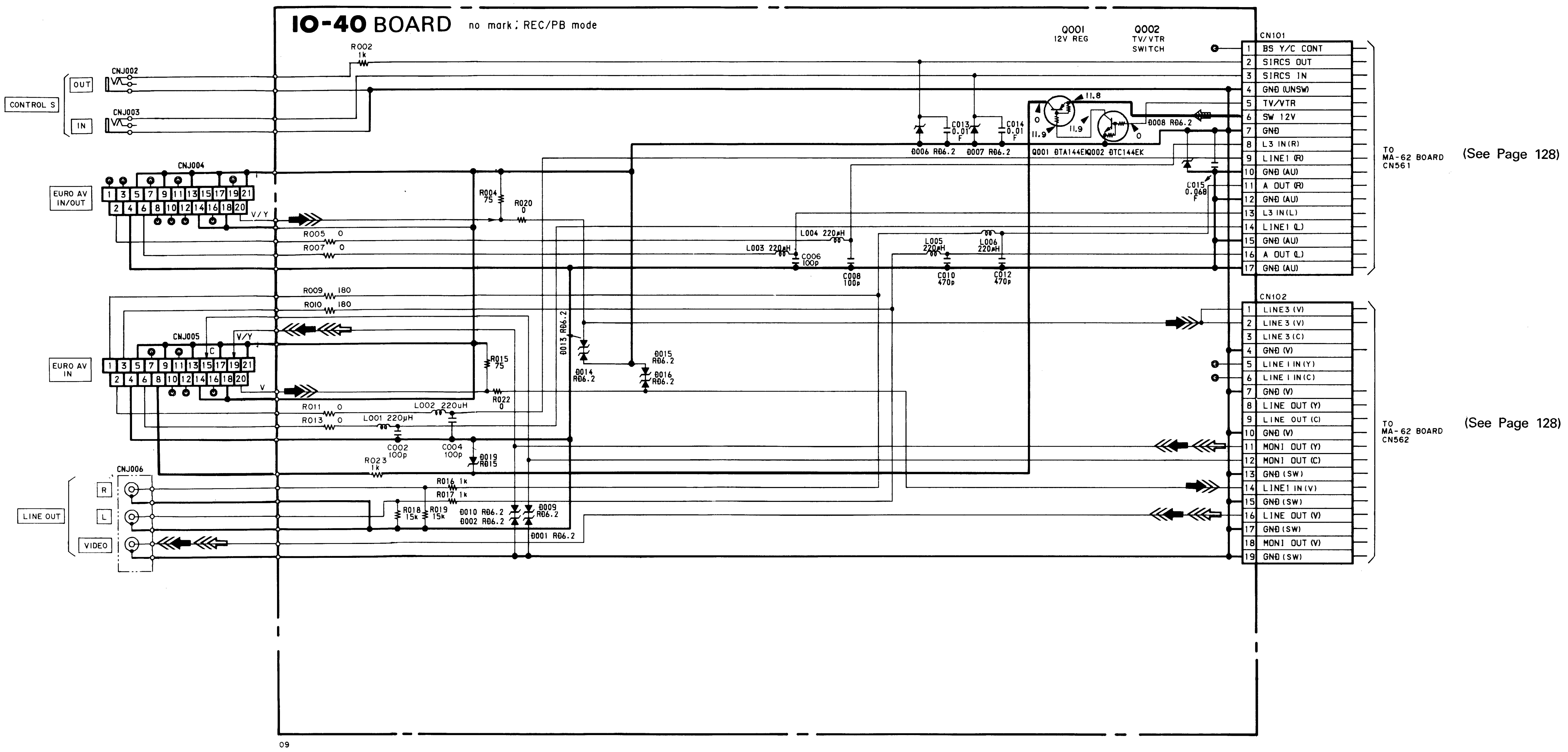

CN102
CN101
Q1
Q2
JW1
JW5
JW4
JW2
L1
L2
L3
L4
L6
C4
C6
C8
C13
C14
C15
C21
R2
R5
R7
R9
R10
R11
R13
R14
R15
R16
R18
R19
R20
R22
R23
D1
D2
D6
D7
D8
D9
D10
D14
D15
D19
CNJ5
EURO AV IN/OUT
CNJ4
ECRO AV IN
CNJ6
VIDEO
AUDIO
CONTROL S OUT
CNJ3
CONTROL S IN
CNJ2
1-637-557-

09

II

IO-40 (TERMINAL) SCHEMATIC DIAGRAM

— Ref. No. IO-40 BOARD: 7000 series —


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
IO-40 BOARD
no mark ; REC/PB mode
Q001
12V REG
Q002
TV/VTR
SWITCH
CONTROL S
OUT
IN
CNJ002
CNJ003
R002
1k
EURO AV
IN/OUT
CNJ004
1 3 5 7 9 11 13 15 17 19 21
2 4 6 8 10 12 14 16 18 20
V/Y
EURO AV
IN
CNJ005
V/Y
V
LINE OUT
CNJ006
R
L
VIDEO
R005 0
R007 0
R009 180
R010 180
R011 0
R013 0
R004
75
R020
0
R015
75
R022
0
L001 220μH
L002 220uH
C002
100p
C004
100p
R023
1k
D019
RD15
R016 1k
R017 1k
R018
15k
R019
15k
D010 RD6.2
D002 RD6.2
D009
RD6.2
D001 RD6.2
D013 RD6.2
D014
RD6.2
D015
RD6.2
D016
RD6.2
L003 220μH
L004 220μH
C006
100p
C008
100p
L005
220μH
L006
220μH
C010
470p
C012
470p
D006 RD6.2
C013
0.01
F
D007 RD6.2
C014
0.01
F
11.8
0
11.9
11.9
0
Q001 DTA144EK
Q002 DTC144EK
D008 RD6.2
C015
0.068
F
CN101
1 BS Y/C CONT
2 SIRCS OUT
3 SIRCS IN
4 GND (UNSW)
5 TV/VTR
6 SW 12V
7 GND
8 L3 IN(R)
9 LINE1 (R)
10 GND (AU)
11 A OUT (R)
12 GND (AU)
13 L3 IN(L)
14 LINE1 (L)
15 GND (AU)
16 A OUT (L)
17 GND (AU)
TO
MA-62 BOARD
CN561
(See Page 128)
CN102
1 LINE3 (V)
2 LINE3 (V)
3 LINE3 (C)
4 GND (V)
5 LINE 1 IN(Y)
6 LINE 1 IN(C)
7 GND (V)
8 LINE OUT (Y)
9 LINE OUT (C)
10 GND (V)
11 MONI OUT (Y)
12 MONI OUT (C)
13 GND (SW)
14 LINE1 IN(V)
15 GND (SW)
16 LINE OUT (V)
17 GND (SW)
18 MONI OUT (V)
19 GND (SW)
TO
MA-62 BOARD
CN562
(See Page 128)
09

- **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡≫	➡
PB			⇨≫	⇨

DIODE

D201	8-719-911-19	DIODE 1SS119
D202	8-719-911-19	DIODE 1SS119
D203	8-719-911-19	DIODE 1SS119
D204	⚠8-719-911-19	DIODE 1SS119
D206	8-719-104-34	DIODE 1S2836
D208	⚠8-719-105-82	DIODE RD5. 1M-B2
D209	8-719-106-08	DIODE RD6. 2M-B2
D211	8-719-400-18	DIODE MA152WK
D212	8-719-400-18	DIODE MA152WK
D216	8-719-400-18	DIODE MA152WK
D217	8-719-400-18	DIODE MA152WK
D218	8-719-104-34	DIODE 1S2836
D219	8-719-106-08	DIODE RD6. 2M-B2

IC

IC201	8-759-504-10	IC MB89794B-PAL
IC202	8-759-748-54	IC CAT35C202P
IC203	8-759-502-50	IC S-8053HNB
IC204	8-759-947-53	IC S-8054ALR
IC205	8-759-961-38	IC BA6138

TRANSISTOR

Q201	8-729-271-23	TRANSISTOR 2SC2712
Q202	8-729-271-23	TRANSISTOR 2SC2712
Q205	8-729-901-01	TRANSISTOR DTC144EK
Q206	8-729-901-01	TRANSISTOR DTC144EK

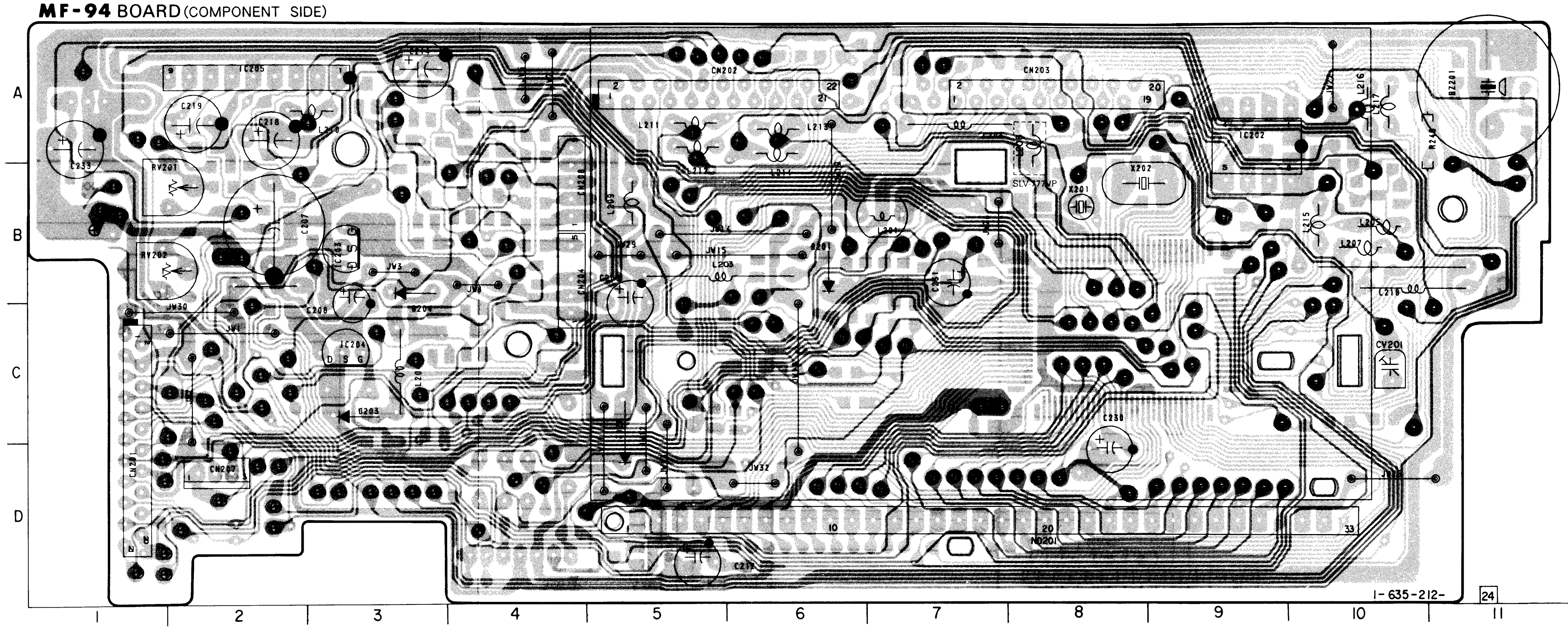
MF-94 BOARD

D201	B-6
D202	D-5
D203	C-3
D204	B-3
D206	C-19
D208	D-18
D209	A-14
D211	A-20
D212	A-20
D216	B-19
D217	B-19
D218	B-17
D219	B-15
IC201	C-15
IC202	A-9
IC203	B-3
IC204	C-3
IC205	A-2
Q201	A-19
Q202	B-20
Q205	C-19
Q206	C-10

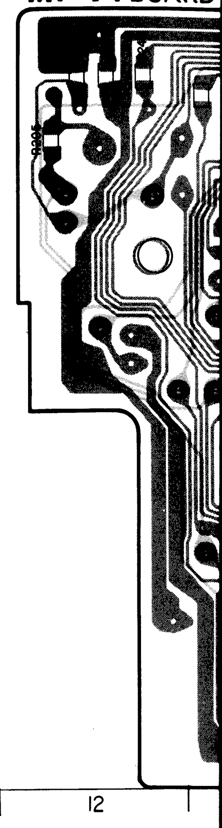
MF-94 (MODE CONTROL), RM-42 (COMMANDER RECIEVER) PRINTED WIRING BOARDS

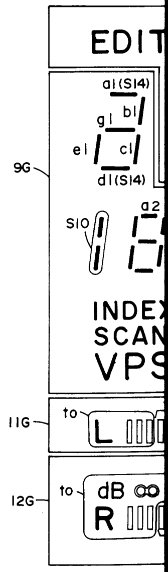
— Ref. No. MF-94, RM-42 BOARDS: 9000 series —

MF-94 BOARD (COMPONENT SIDE)


A
B
C
D
1
2
3
4
5
6
7
8
9
10
11
12
IC205
C219
C218
C233
RV201
RV202
C207
IC203
IC204
D204
D203
CN201
CN207
CN202
CN203
L211
L213
IC202
X202
X201
SLV-777VP
L204
L203
JV15
C250
CV201
L216
L205
L207
L218
BZ201
ND201
C217
1-635-212-
24

MF-94 BOARD



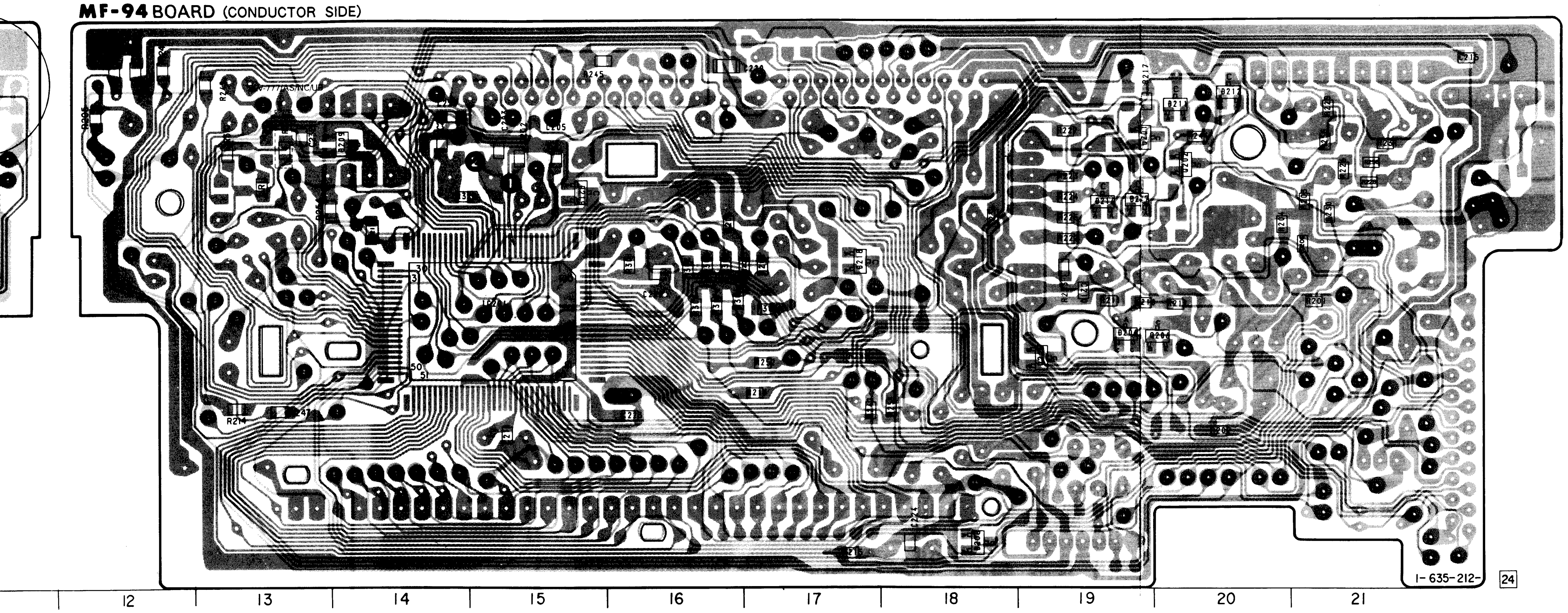

EDI
a1(S14)
b1
g1
e1
c1
d1(S14)
9G
S10
a2
INDE
SCAN
VPS
11G
to
L
12G
to
dB
R

DIODE

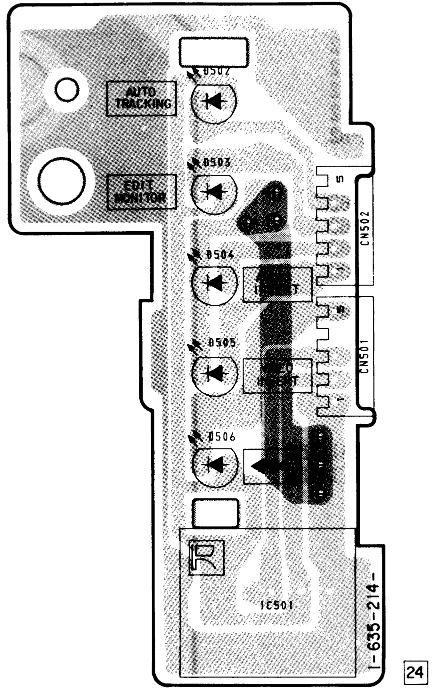
D502	8-719-955-04	DIODE SLR-54MC3 (AUTO TRAKING)
D503	8-719-302-07	DIODE SLR-54DC3 (EDIT MONITOR)
D504	8-719-921-01	DIODE SLR-54VC3 (AUDIO INSERT)
D505	8-719-921-01	DIODE SLR-54VC3 (VIDEO INSERT)
D506	8-719-955-04	DIODE SLR-54MC3 ()

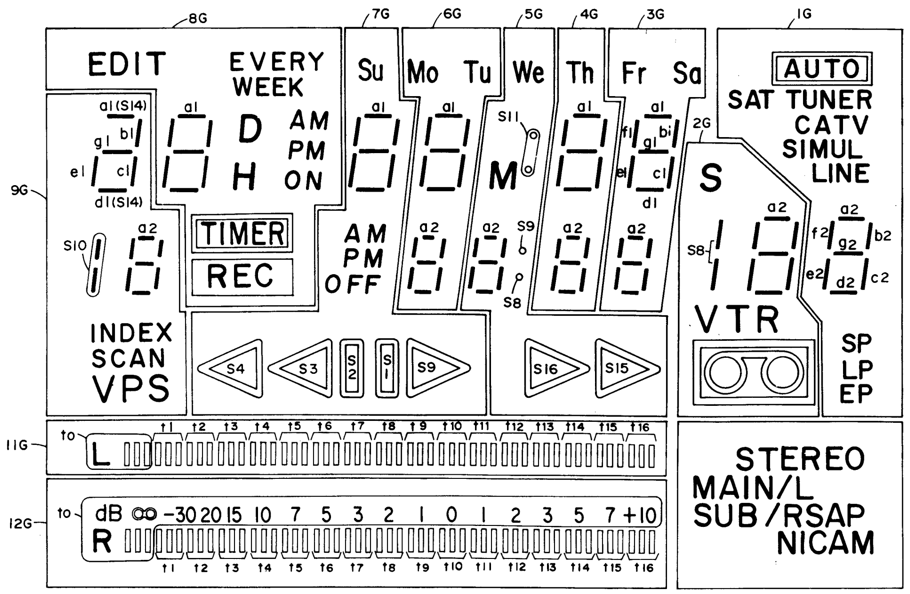
- **For printed wiring boards.**
- ⊗ : Through hole.

MF-94 BOARD (CONDUCTOR SIDE)


1-635-212-
24
12
13
14
15
16
17
18
19
20
21

RM-42 BOARD (COMPONENT SIDE)

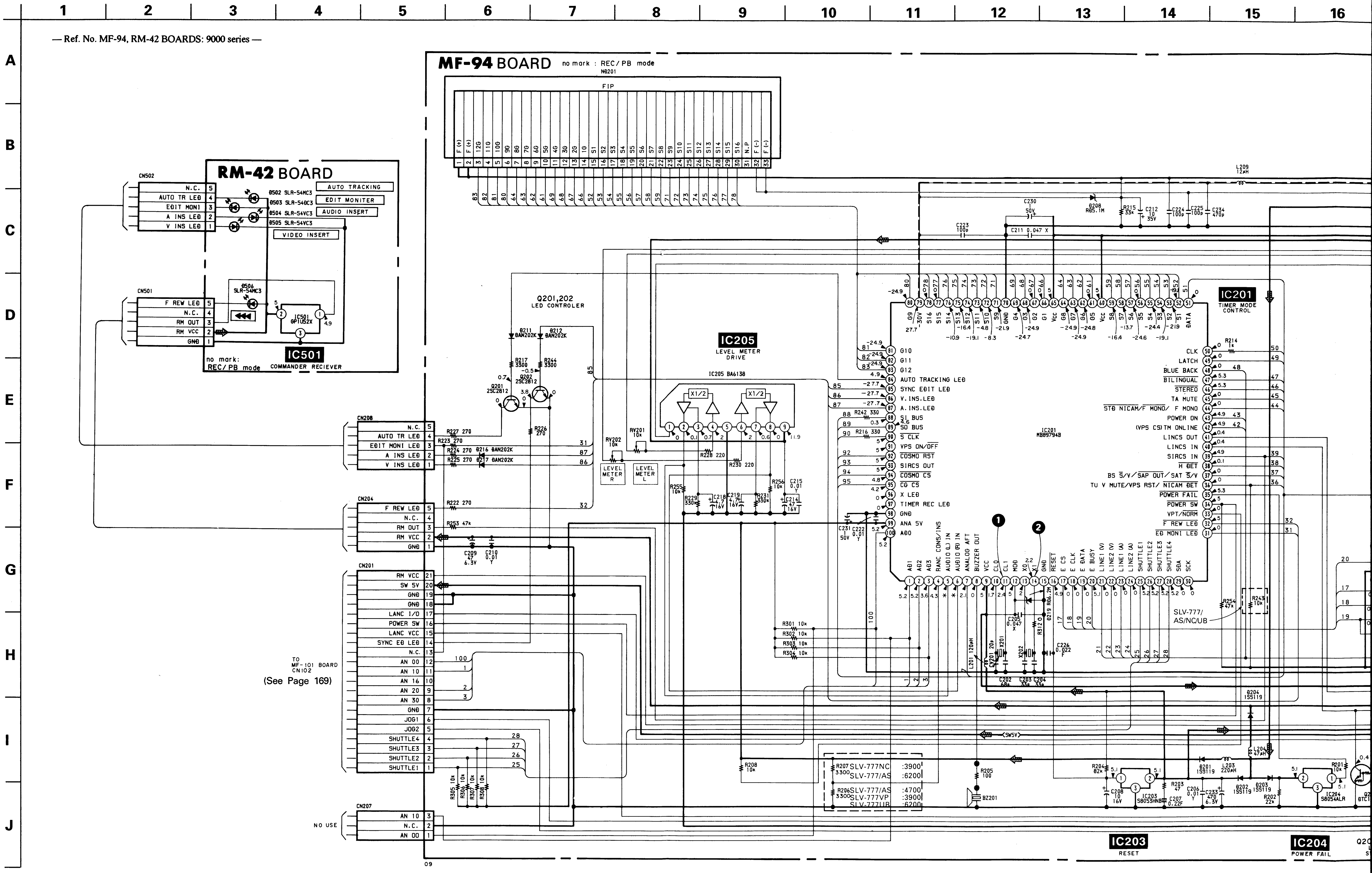

AUTO TRACKING
EDIT MONITOR
D502
D503
D504
D505
D506
CN502
CN501
IC501
1-635-214-
24


8G
7G
6G
5G
4G
3G
1G
2G
9G
11G
12G
EDIT
EVERY WEEK
Su
Mo
Tu
We
Th
Fr
Sa
AUTO
SAT TUNER
CATV
SIMUL
LINE
D
H
AM
PM
ON
M
S
TIMER
REC
AM
PM
OFF
INDEX
SCAN
VPS
VTR
SP
LP
EP
S4
S3
S2
S1
S9
S16
S15
S8
S10
S11
STEREO
MAIN/L
SUB/RSAP
NICAM
dB ∞ -30 20 15 10 7 5 3 2 1 0 1 2 3 5 7 +10
L
R
to
t1 t2 t3 t4 t5 t6 t7 t8 t9 t10 t11 t12 t13 t14 t15 t16

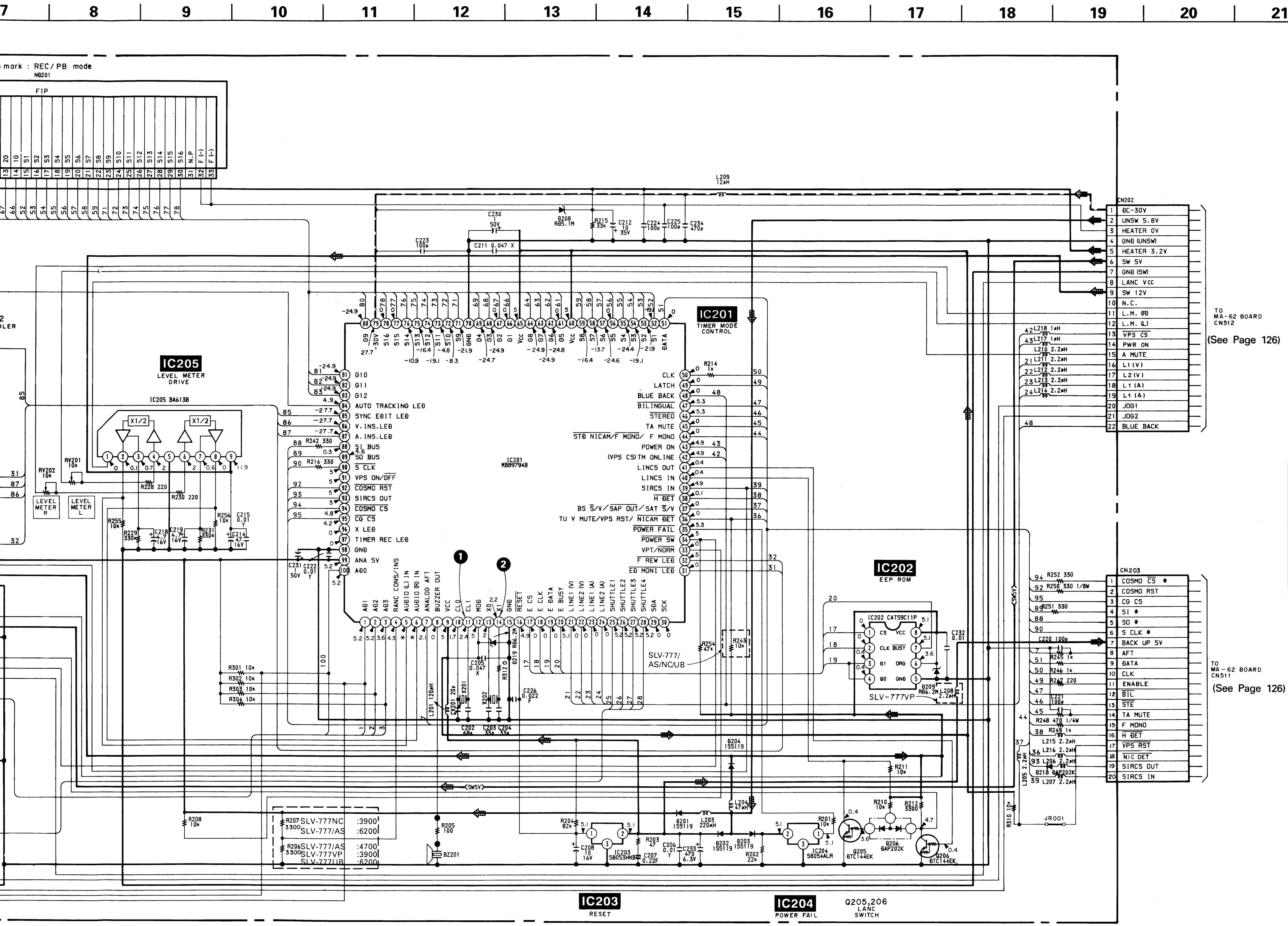
	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	t1	t1		d2	**H**	▯	d2	d2	d2	d2	d2	d2
S2	t2	t2		e2	**D**	▯	e2	e2	e2	e2	e2	e2
S3	t3	t3		c2	**AM**	◁	c2	c2	c2	c2	c2	c2
S4	t4	t4		g2	**PM**	◁	g2	g2	g2	g2	g2	g2
S5	t5	t5		f2	**ON**	**OFF**	f2	f2	f2	f2	f2	f2
S6	t6	t6		b2	**REC**	**PM**	b2	b2	b2	b2	b2	b2
S7	t7	t7		a2	**TIMER**	**AM**	a2	a2	a2	a2		a2
S8	t8	t8		**SCAN**	**EVERY WEEK**	**Su**	**Tu**	.	**Th**	**Fr**	/	**SP**
S9	t9	t9	**STEREO**	**VPS**	**EDIT**	▷	**Mo**	·		**Sa**	**VTR**	**LP**
S10	t10	t10		/	d1	d1	d1	**M**	d1	d1	**S**	**LINE**
S11	t11	t11	**SUB/R**	e1	e1	e1	e1	:	e1	e1		**SIMUL**
S12	t12	t12	**NICAM**	c1	c1	c1	c1		c1	c1		**CATV**
S13	t13	t13		g1	g1	g1	g1		g1	g1		**TUNER**
S14	t14	t14		a1, d1	f1	f1	f1	**We**	f1	f1		**AUTO**
S15	t15	t15	**SAP**	b1	b1	b1	b1	▷	b1	b1		**SAT**
S16	t16	t16	**MAIN/L**	**INDEX**	a1	a1	a1	▷	a1	a1	▭	**EP**

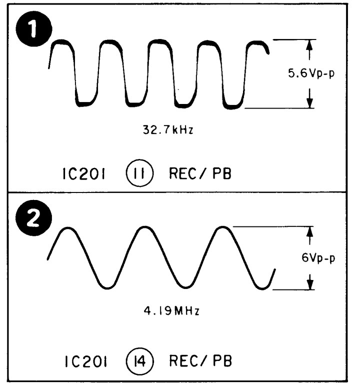
MF-94 (MODE CONTROL), RM-42 (COMMANDER RECIEVER) SCHEMATIC DIAGRAMS

— Ref. No. MF-94, RM-42 BOARDS: 9000 series —



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
MF-94 BOARD
no mark : REC/PB mode
FIP
RM-42 BOARD
CN502
N.C.
AUTO TR LED
EDIT MONI
A INS LED
V INS LED
D502 SLR-54MC3
D503 SLR-54DC3
D504 SLR-54VC3
D505 SLR-54VC3
AUTO TRACKING
EDIT MONITER
AUDIO INSERT
VIDEO INSERT
CN501
F REW LED
RM OUT
RM VCC
GND
D506 SLR-54MC3
IC501 GP1U52X
IC501
COMMANDER RECIEVER
no mark: REC/PB mode
Q201,202 LED CONTROLER
D211 DAN202K
D212 DAN202K
Q201 2SC2812
Q202 2SC2812
IC205
LEVEL METER DRIVE
IC205 BA6138
X1/2
RV202 10k
RV201 10k
LEVEL METER R
LEVEL METER L
IC201
TIMER MODE CONTROL
IC201 MB89794B
G10
G11
G12
AUTO TRACKING LED
SYNC EDIT LED
V.INS.LED
A.INS.LED
SI BUS
SO BUS
S CLK
VPS ON/OFF
COSMO RST
SIRCS OUT
COSMO CS
CG CS
X LED
TIMER REC LED
GND
ANA 5V
ADO
CLK
LATCH
BLUE BACK
BILINGUAL
STEREO
TA MUTE
STD NICAM/F MONO/ F MONO
POWER ON
(VPS CS) TM ONLINE
LINCS OUT
LINCS IN
SIRCS IN
H DET
BS S/V/SAP OUT/ SAT S/V
TU V MUTE/VPS RST/ NICAM DET
POWER FAIL
POWER SW
VPT/NORM
F REW LED
ED MONI LED
AD1
AD2
AD3
RANC CONS/INS
AUDIO (L) IN
AUDIO (R) IN
ANALOG AFT
BUZZER OUT
VCC
CL0
CL1
MOD
X0
X1
GND
RESET
E CS
E CLK
E DATA
E BUSY
LINE1 (V)
LINE2 (V)
LINE1 (A)
LINE2 (A)
SHUTTLE1
SHUTTLE2
SHUTTLE4
SDA
SCK
①
②
SLV-777/AS/NC/UB
CN208
N.C.
AUTO TR LED
EDIT MONI LED
A INS LED
V INS LED
CN204
F REW LED
N.C.
RM OUT
RM VCC
GND
CN201
RM VCC
SW 5V
GND
LANC I/O
POWER SW
LANC VCC
SYNC ED LED
N.C.
AN 00
AN 10
AN 16
AN 20
AN 30
JOG1
JOG2
SHUTTLE4
SHUTTLE3
SHUTTLE2
SHUTTLE1
TO MF-101 BOARD CN102
(See Page 169)
CN207
AN 10
N.C.
AN 00
NO USE
R207 3300 SLV-777NC :3900
SLV-777/AS :6200
R206 3300 SLV-777/AS :4700
SLV-777VP :3900
SLV-777UB :6200
R208 10k
R205 100
BZ201
X201
X202
L201 120μH
CV201 20p
C202 68p
C203 33p
C204 33p
C226 0.022 F
D208 RD5.1M
C230 50V
C211 0.047 X
C223 100p
C212 10 35V
C224 100p
C225 100p
C234 470p
L209 12μH
R214 1k
D204 1SS119
D201 1SS119
D202 1SS119
D203 1SS119
L203 220μH
L204 47μH
C208 10 16V
C207 0.22F
C206 0.01
C233 470 6.3V
R203 47
R204 82k
R201 10k
R202 22k
IC203 S8053HNB
IC204 S8054ALR
IC203
RESET
IC204
POWER FAIL
<SW5V>
C209 47 6.3V
C210 0.01
R301 10k
R302 10k
R303 10k
R304 10k
R305 10k
R306 10k
R307 10k
R308 10k
09


7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
mark : REC/PB mode
ND201
FIP
IC201
TIMER MODE CONTROL
IC201 MB89794B
IC205
LEVEL METER DRIVE
IC205 BA6138
LEVEL METER R
LEVEL METER L
IC202
EEP ROM
IC202 CAT59C11P
IC203
RESET
IC203 S8053HNB
IC204
POWER FAIL
IC204 S8054ALR
Q205,206
LANC SWITCH
Q205 DTC144EK
Q206 DTC144EK
Q209 DAP202K
BZ201
X201
X202
SLV-777/AS/NC/UB
SLV-777VP
R207 3300 SLV-777NC :3900
SLV-777/AS :6200
R206 3300 SLV-777/AS :4700
SLV-777VP :3900
SLV-777UB :6200
CN202
DC-30V
UNSW 5.8V
HEATER 0V
GND (UNSW)
HEATER 3.2V
SW 5V
GND (SW)
LANC VCC
SW 12V
N.C.
L.M. (R)
L.M. (L)
VPS CS
PWR ON
A MUTE
L1 (V)
L2 (V)
L1 (A)
L1 (A)
JOG1
JOG2
BLUE BACK
TO MA-62 BOARD CN512
(See Page 126)
CN203
COSMO CS
COSMO RST
CG CS
SI
SO
S CLK
BACK UP 5V
AFT
DATA
CLK
ENABLE
BIL
STE
TA MUTE
F MONO
H DET
VPS RST
NIC DET
SIRCS OUT
SIRCS IN
TO MA-62 BOARD CN511
(See Page 126)
G10
G11
G12
AUTO TRACKING LED
SYNC EDIT LED
V.INS.LED
A.INS.LED
S1 BUS
SO BUS
S CLK
VPS ON/OFF
COSMO RST
SIRCS OUT
COSMO CS
CG CS
X LED
TIMER REC LED
GND
ANA 5V
AD0
CLK
LATCH
BLUE BACK
BILINGUAL
STEREO
TA MUTE
STD NICAM/F MONO/ F MONO
POWER ON
(VPS CS)TM ONLINE
LINCS OUT
LINCS IN
SIRCS IN
H DET
BS S/V/SAP OUT/SAT S/V
TU V MUTE/VPS RST/ NICAM DET
POWER FAIL
POWER SW
VPT/NORM
F REW LED
ED MONI LED
AD1
AD2
AD3
RANC CONS/INS
AUDIO (L) IN
AUDIO (R) IN
ANALOG AFT
BUZZER OUT
VCC
CL0
CL1
MOD
XO
XI
GND
RESET
E CS
E CLK
E DATA
E BUSY
LINE1 (V)
LINE2 (V)
LINE1 (A)
LINE2 (A)
SHUTTLE1
SHUTTLE2
SHUTTLE3
SHUTTLE4
SDA
SCK
CS
VCC
CLK
BUSY
DI
ORG
DO
GND
(SW5V)
❶
❷


MF-94 BOARD
❶
5.6Vp-p
32.7kHz
IC201 ⑪ REC/PB
❷
6Vp-p
4.19MHz
IC201 ⑭ REC/PB

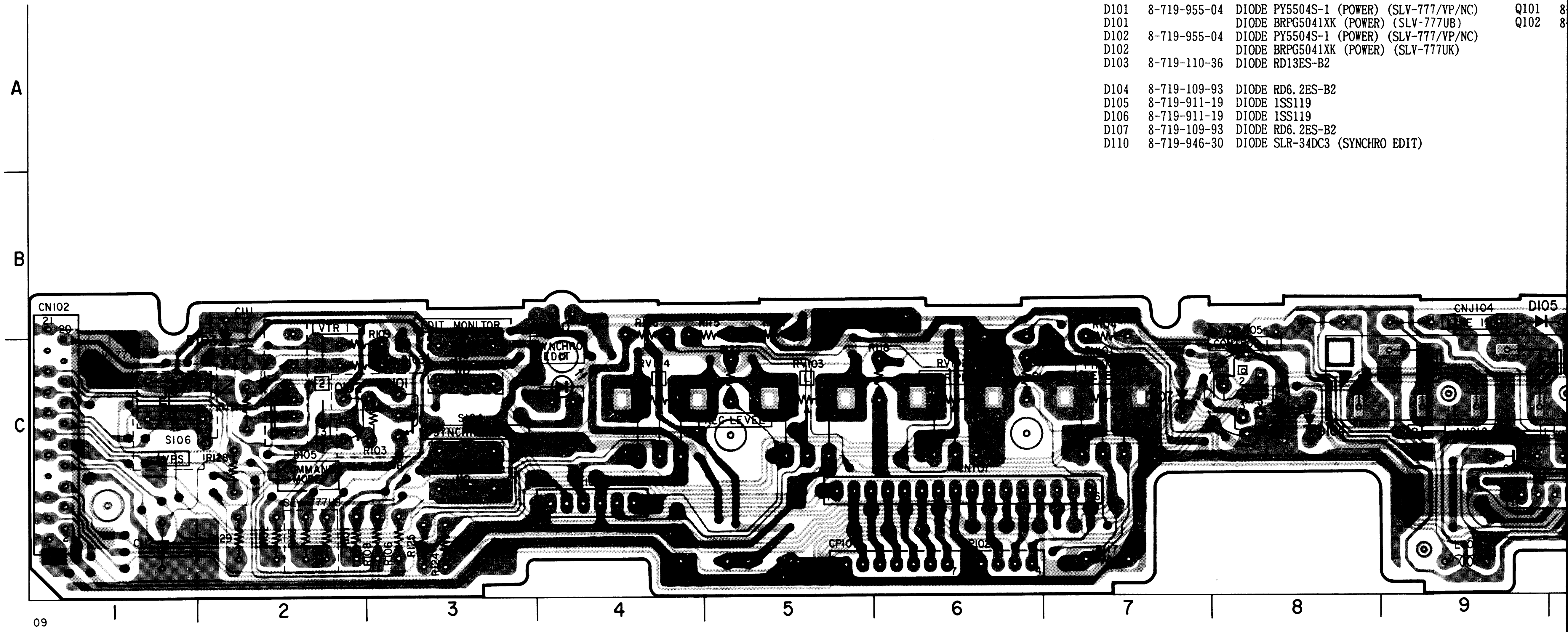
MF-101 (FUNCTION SWITCH, TERMINAL), TK-12 (RELAY), JS-20 (JOG/SHUTTLE), SWITCH BLOCK PRINTED WIRING BOARDS

— Ref. No. TK-12 BOARD: 6000 series, JS-20 BOARD: 8000 series, MF-101 BOARD: 90000 series —

MF-101 BOARD

D101	A-12
D102	A-12
D103	B-2
D104	C-8
D105	B-10
D107	C-7
D110	C-4
Q101	C-3
Q102	C-2

MF-101 BOARD

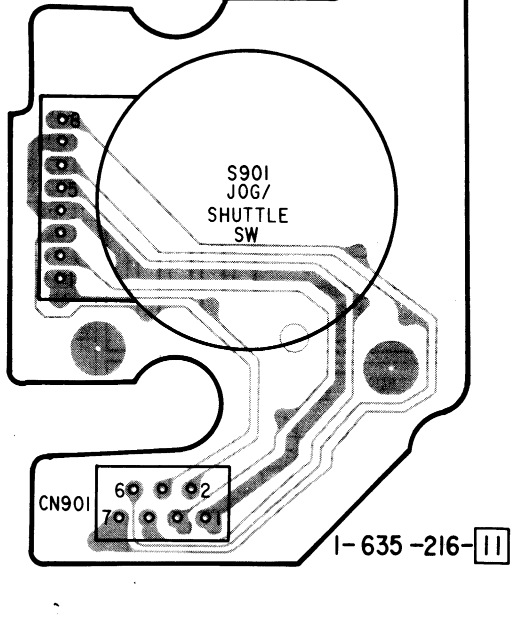

A
B
C
CN102
21
20
S106
VBS
R128
R129
Q102
VTR
R109
R101
R103
S105
COMMAND MODE
SLV-777UB
R108
R106
R123
R124
EDIT MONITOR
SYNCHRO EDIT
RV104
RV103
REC LEVEL
R116
CN101
CP101
R102
CONTROL
CNJ104
D105
1
2
3
4
5
6
7
8
9
09

DIODE

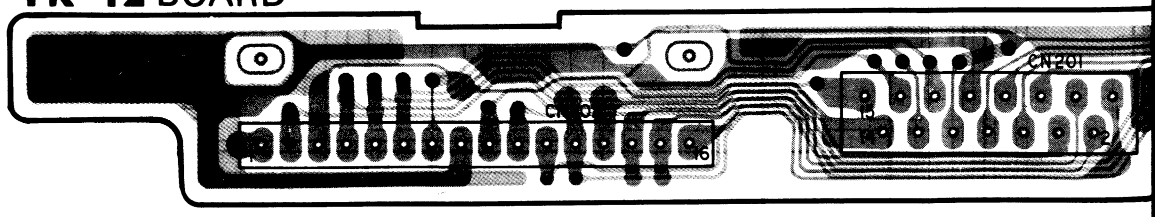
D101	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/VP/NC)
D101		DIODE BRPG5041XK (POWER) (SLV-777UB)
D102	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/VP/NC)
D102		DIODE BRPG5041XK (POWER) (SLV-777UK)
D103	8-719-110-36	DIODE RD13ES-B2
D104	8-719-109-93	DIODE RD6. 2ES-B2
D105	8-719-911-19	DIODE 1SS119
D106	8-719-911-19	DIODE 1SS119
D107	8-719-109-93	DIODE RD6. 2ES-B2
D110	8-719-946-30	DIODE SLR-34DC3 (SYNCHRO EDIT)

Q101 8
Q102 8

JS-20 BOARD


S901
JOG/
SHUTTLE
SW
CN901
6
2
7
1-635-216-11

TK-12 BOARD

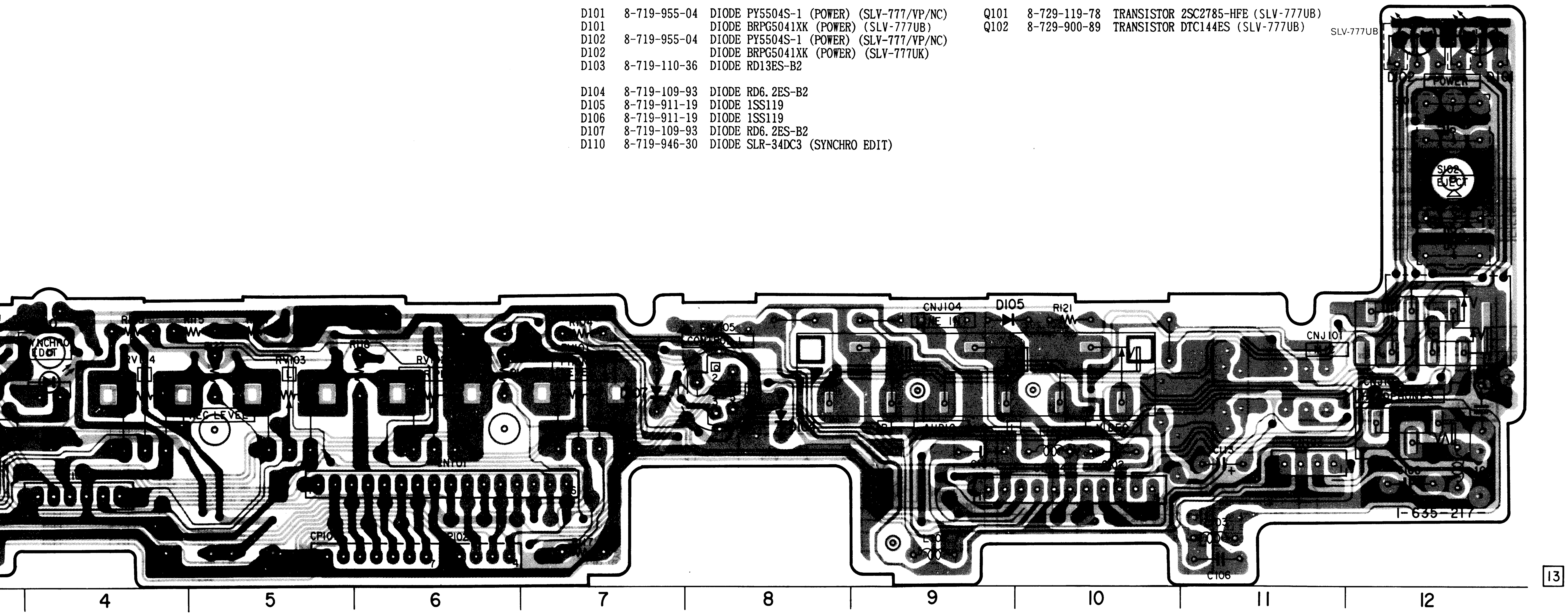

CN201
CN101

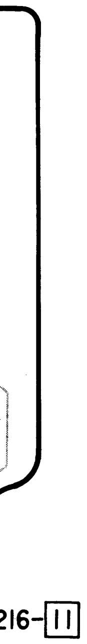
DIODE

D101	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/VP/NC)
D101		DIODE BRPG5041XK (POWER) (SLV-777UB)
D102	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/VP/NC)
D102		DIODE BRPG5041XK (POWER) (SLV-777UK)
D103	8-719-110-36	DIODE RD13ES-B2
D104	8-719-109-93	DIODE RD6.2ES-B2
D105	8-719-911-19	DIODE 1SS119
D106	8-719-911-19	DIODE 1SS119
D107	8-719-109-93	DIODE RD6.2ES-B2
D110	8-719-946-30	DIODE SLR-34DC3 (SYNCHRO EDIT)

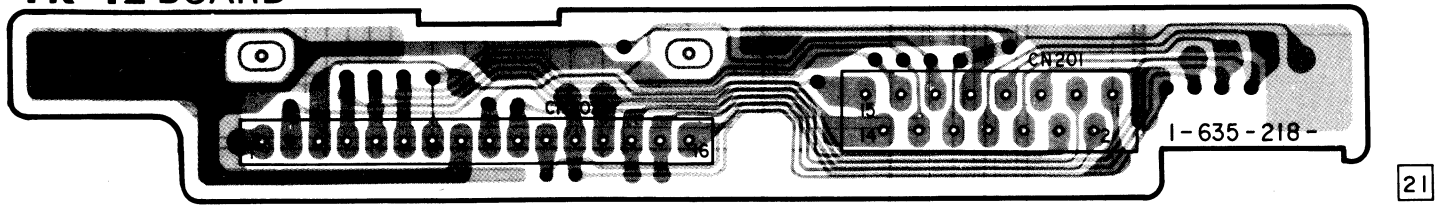
TRANSISTOR

Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE (SLV-777UB)
Q102	8-729-900-89	TRANSISTOR DTC144ES (SLV-777UB)


SLV-777UB
D102
D101
POWER
S102
EJECT
CNJ104
D105
R121
CNJ101
SYNCHRO EDIT
RV104
RV103
REC LEVEL
CP101
1-635-217
C106
4
5
6
7
8
9
10
11
12
13

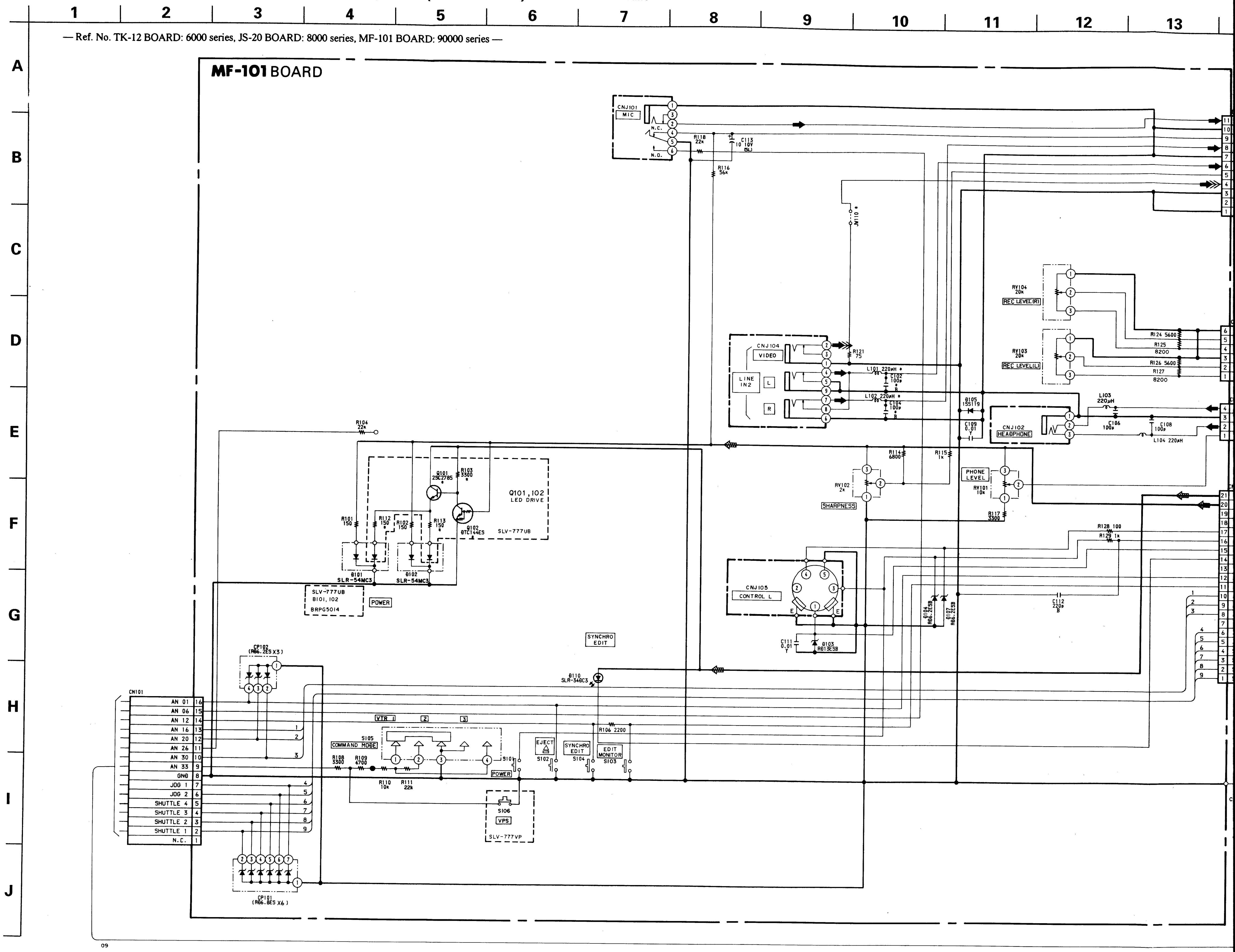


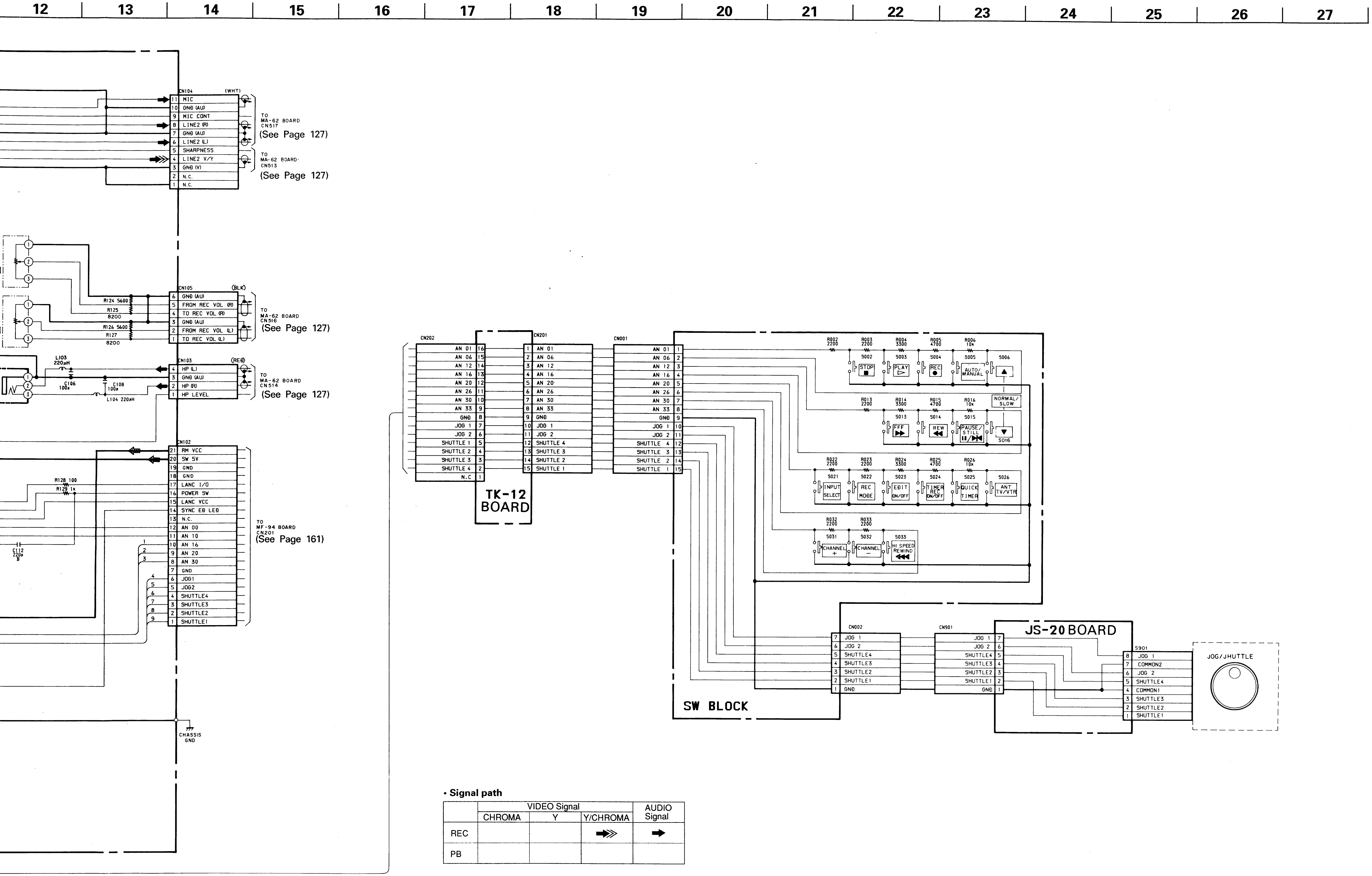
TK-12 BOARD


CN201
13
14
1
2
1-635-218-
21

MF-101 (FUNCTION SWITCH, TERMINAL), TK-12 (RELAY), JS-20 (JOG/SHUTTLE) SCHEMATIC DIAGRAMS

— Ref. No. TK-12 BOARD: 6000 series, JS-20 BOARD: 8000 series, MF-101 BOARD: 90000 series —


1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
J
MF-101 BOARD
CNJ101
MIC
N.C.
N.O.
R118 22k
C113 10 10V
R116 56k
JW110
CNJ104
VIDEO
LINE IN2
L
R
R121 75
L101 220μH
C102 100p
L102 220μH
C104 100p
RV104 20k
REC LEVEL(R)
RV103 20k
REC LEVEL(L)
R124 5600
R125 8200
R126 5600
R127 8200
D105 1SS119
C109 0.01
CNJ102
HEADPHONE
L103 220μH
C106 100p
C108 100p
L104 220μH
R104 22k
Q101 2SC2785
R103 3300
Q101,102 LED DRIVE
Q102 DTC144ES
SLV-777UB
R101 150
R112 150
R102 150
R113 150
D101 SLR-54MC3
D102 SLR-54MC3
SLV-777UB
B101, 102
BRPG5014
POWER
R114 6800
R115 1k
RV102 2k
SHARPNESS
PHONE LEVEL
RV101 10k
R117 3300
R128 100
R129 1k
CNJ103
CONTROL L
C111 0.01
D103 RD13ESB
D104 RD6.2ESB
D107 RD6.2ESB
C112 220p
SYNCHRO EDIT
D110 SLR-340C3
CP102 (RD6.2ES X3)
CN101
AN 01
AN 06
AN 12
AN 16
AN 20
AN 26
AN 30
AN 33
GND
JOG 1
JOG 2
SHUTTLE 4
SHUTTLE 3
SHUTTLE 2
SHUTTLE 1
N.C.
VTR 1
2
3
S105
COMMAND MODE
R108 3300
R109 4700
R110 10k
R111 22k
S101
POWER
EJECT
S102
SYNCHRO EDIT
S104
EDIT MONITOR
S103
R106 2200
S106
VPS
SLV-777VP
CP101 (RD6.8ES X6)
09


12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
CN104 (WHT)
11 MIC
10 GND (AU)
9 MIC CONT
8 LINE2 (R)
7 GND (AU)
6 LINE2 (L)
5 SHARPNESS
4 LINE2 V/Y
3 GND (V)
2 N.C.
1 N.C.
TO MA-62 BOARD CN517
(See Page 127)
TO MA-62 BOARD CN513
(See Page 127)
CN105 (BLK)
6 GND (AU)
5 FROM REC VOL (R)
4 TO REC VOL (R)
3 GND (AU)
2 FROM REC VOL (L)
1 TO REC VOL (L)
R124 5600
R125 8200
R126 5600
R127 8200
TO MA-62 BOARD CN516
(See Page 127)
L103 220µH
C106 100p
C108 100p
L104 220µH
CN103 (RED)
4 HP (L)
3 GND (AU)
2 HP (R)
1 HP LEVEL
TO MA-62 BOARD CN514
(See Page 127)
CN102
21 RM VCC
20 SW 5V
19 GND
18 GND
17 LANC I/O
16 POWER SW
15 LANC VCC
14 SYNC EQ LED
13 N.C.
12 AN 00
11 AN 10
10 AN 16
9 AN 20
8 AN 30
7 GND
6 JOG1
5 JOG2
4 SHUTTLE4
3 SHUTTLE3
2 SHUTTLE2
1 SHUTTLE1
R128 100
R129 1k
C112 220p B
TO MF-94 BOARD CN201
(See Page 161)
CHASSIS GND
CN202
AN 01 16
AN 06 15
AN 12 14
AN 16 13
AN 20 12
AN 26 11
AN 30 10
AN 33 9
GND 8
JOG 1 7
JOG 2 6
SHUTTLE 1 5
SHUTTLE 2 4
SHUTTLE 3 3
SHUTTLE 4 2
N.C 1
CN201
1 AN 01
2 AN 06
3 AN 12
4 AN 16
5 AN 20
6 AN 26
7 AN 30
8 AN 33
9 GND
10 JOG 1
11 JOG 2
12 SHUTTLE 4
13 SHUTTLE 3
14 SHUTTLE 2
15 SHUTTLE 1
TK-12 BOARD
CN001
AN 01 1
AN 06 2
AN 12 3
AN 16 4
AN 20 5
AN 26 6
AN 30 7
AN 33 8
GND 9
JOG 1 10
JOG 2 11
SHUTTLE 4 12
SHUTTLE 3 13
SHUTTLE 2 14
SHUTTLE 1 15
R002 2200
R003 2200
R004 3300
R005 4700
R006 10k
S002 STOP ■
S003 PLAY ▷
S004 REC ●
S005 AUTO/MANUAL
S006 ▲
NORMAL/SLOW
R013 2200
R014 3300
R015 4700
R016 10k
S013 FF ▶▶
S014 REW ◀◀
S015 PAUSE/STILL II/▶◀
S016 ▼
R022 2200
R023 2200
R024 3300
R025 4700
R026 10k
S021 INPUT SELECT
S022 REC MODE
S023 EDIT ON/OFF
S024 TIMER REC ON/OFF
S025 QUICK TIMER
S026 ANT TV/VTR
R032 2200
R033 2200
S031 CHANNEL +
S032 CHANNEL −
S033 HI SPEED REWIND ◀◀◀
CN002
7 JOG 1
6 JOG 2
5 SHUTTLE4
4 SHUTTLE3
3 SHUTTLE2
2 SHUTTLE1
1 GND
SW BLOCK
CN901
JOG 1 7
JOG 2 6
SHUTTLE4 5
SHUTTLE3 4
SHUTTLE2 3
SHUTTLE1 2
GND 1
JS-20 BOARD
S901
8 JOG 1
7 COMMON2
6 JOG 2
5 SHUTTLE4
4 COMMON1
3 SHUTTLE3
2 SHUTTLE2
1 SHUTTLE1
JOG/JHUTTLE

• **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			⇛	➡
PB				

NA-7 (NICAM DECODER), NM-1 (NICAM SELECTOR) PRINTED WIRING BOARDS

— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —

DIODE

D001	8-719-801-52	DIODE 1SS190-TE85L
D002	8-719-801-52	DIODE 1SS190-TE85L
D003	8-719-400-18	DIODE 1S2837-T1
D004	8-719-400-18	DIODE 1S2837-T1
D005	8-719-400-18	DIODE 1S2837-T1
D006	8-719-400-18	DIODE 1S2837-T1
D007	8-719-400-18	DIODE 1S2837-T1
D008	8-719-104-34	DIODE 1S2835-T1

IC

IC001	8-759-231-09	IC TA8662N
IC002	8-759-231-28	IC TC6011N
IC003	8-752-331-22	IC CXK5864BSP-10L
IC004	8-759-231-29	IC TD6710AN
IC005	8-759-900-72	IC NE5532P
IC006	8-759-900-72	IC NE5532P

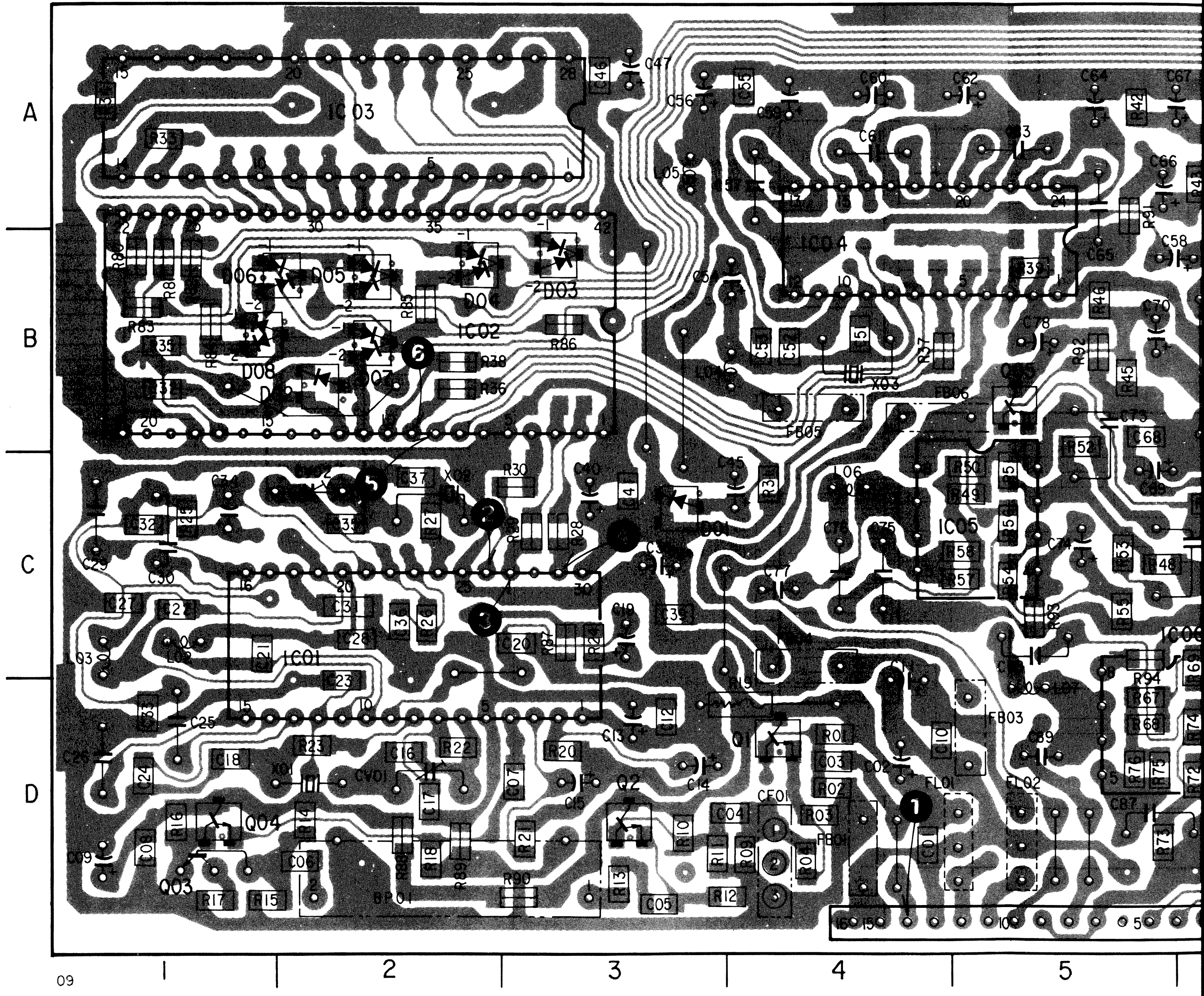
TRANSISTOR

Q001	8-729-100-66	TRANSISTOR 2SC1623-L6
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6
Q003	8-729-104-80	TRANSISTOR 2SC3355
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6

NA-7 BOARD

D001	C-3
D002	D-2
D003	B-3
D004	B-2
D005	B-2
D006	B-2
D007	B-2
D008	B-1
IC001	C-2
IC002	B-1
IC003	A-1
IC004	A-4
IC005	C-5
IC006	D-5
Q001	D-4
Q002	D-3
Q003	D-1
Q004	D-1
Q005	B-5
Q006	D-6

NA-7 BOARD


A
B
C
D
1
2
3
4
5
09
IC03
IC04
IC02
IC01
IC05
D06
D05
D03
D08
D07
Q04
Q03
Q2
X03
FB03
FB05
FB06
FL01
FL02
CE01
RE01
BP01
CV01

OR

SISTOR 2SC1623-L6
SISTOR 2SC1623-L6
SISTOR 2SC3355
SISTOR 2SC1623-L6
SISTOR 2SC1623-L6

SISTOR 2SC1623-L6

DIODE

D002 8-719-911-19 DIODE 1SS119
D003 8-719-911-19 DIODE 1SS119
D010 8-719-911-19 DIODE 1SS119

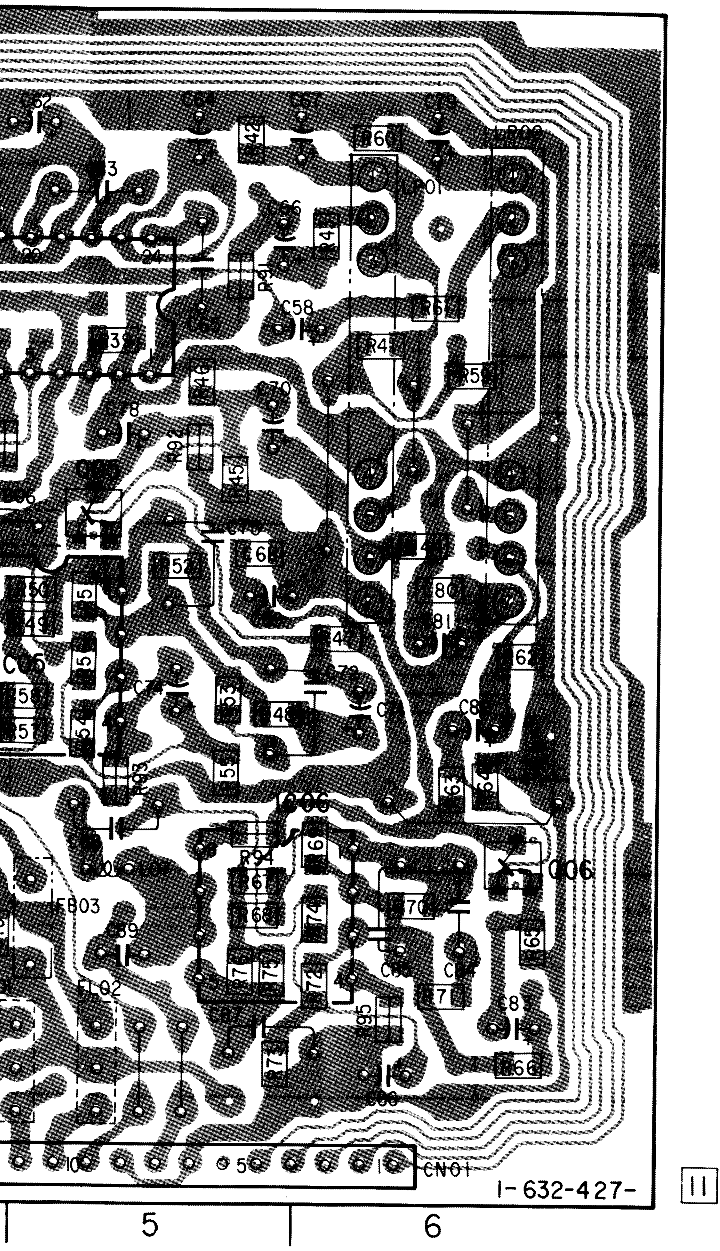
IC

IC001 8-759-800-81 IC LA7016
IC002 8-759-800-81 IC LA7016

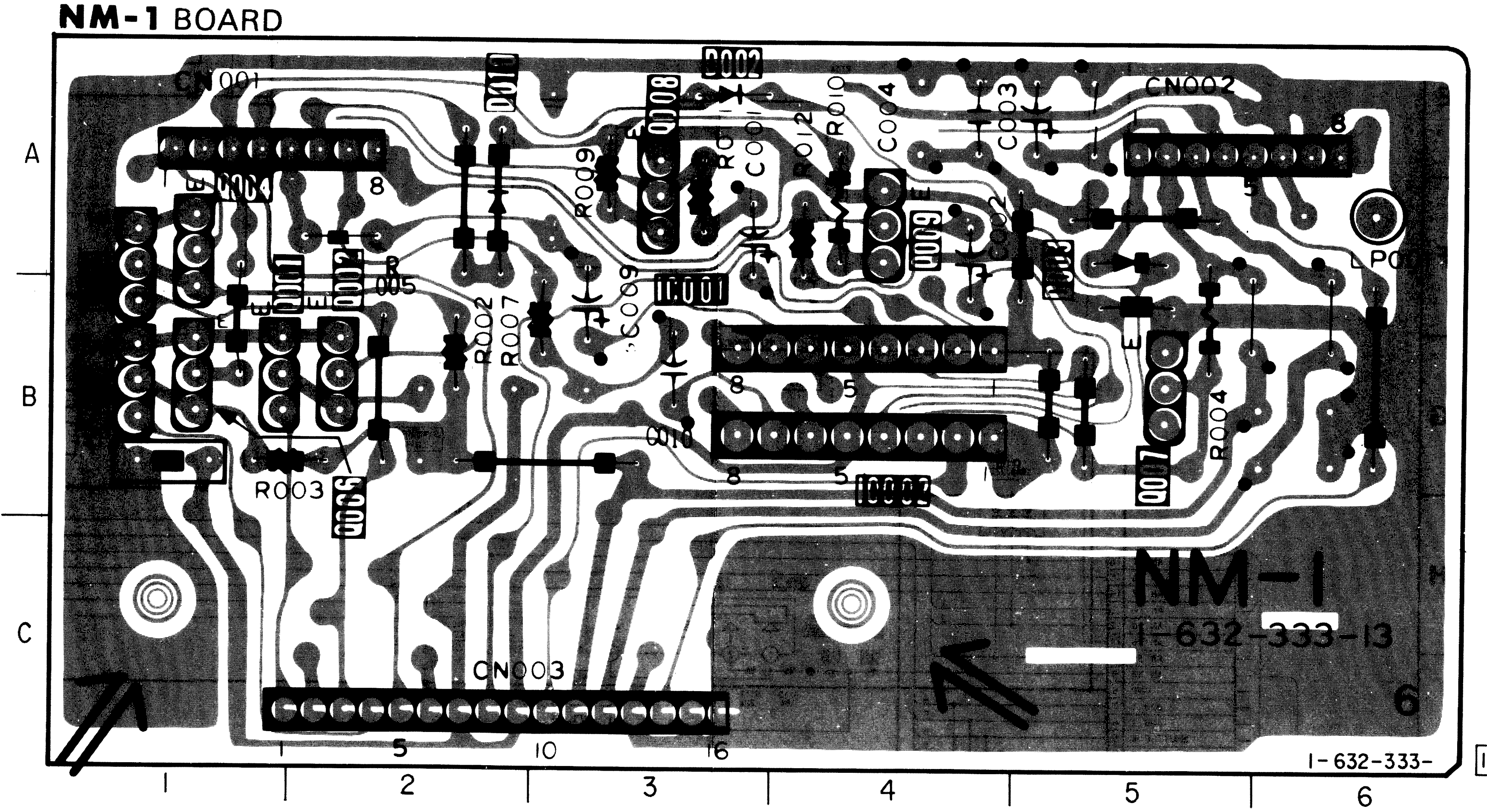
TRANSISTOR

Q003 8-729-900-80 TRANSISTOR DTC114ES
Q004 8-729-900-80 TRANSISTOR DTC114ES
Q005 8-729-900-80 TRANSISTOR DTC114ES
Q006 8-729-900-80 TRANSISTOR DTC114ES
Q007 8-729-900-80 TRANSISTOR DTC114ES

Q008 8-729-303-37 TRANSISTOR 2SD655E
Q009 8-729-303-37 TRANSISTOR 2SD655E


C62
C64
C67
C79
R42
R60
LP01
C66
R44
R41
C58
C65
R39
R61
R40
R4
R59
C70
C78
R92
R45
C68
R52
R50
R49
C72
R48
R53
R54
R80
R81
R62
C83
R63
C06
R94
R67
R68
R70
R74
R72
R76
R79
C87
C89
F803
FL02
R73
R71
R65
R66
C90
Q06
CN01
10
5
1
1-632-427-
11
5
6

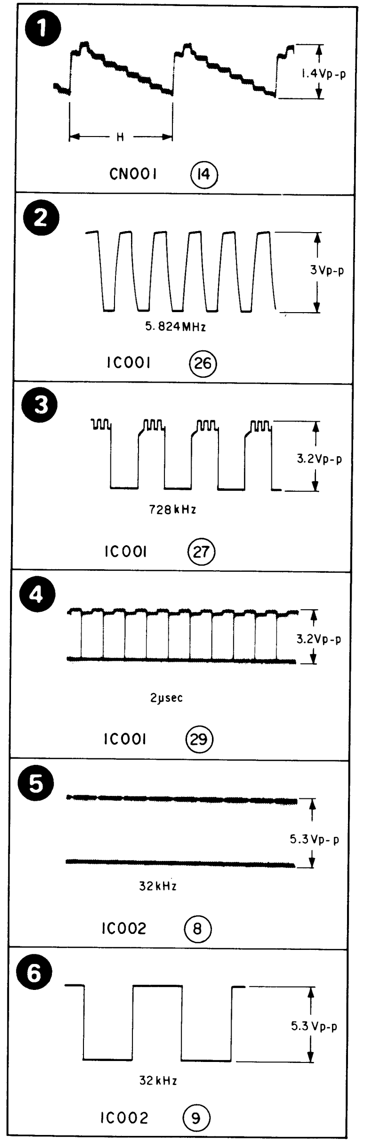
NM-1 BOARD


CN001
1
8
D010
D002
Q008
R009
R011
C001
R012
R010
C004
C003
C002
CN002
8
5
Q009
LP001
R005
Q001
Q002
Q003
Q004
Q005
Q006
R002
R007
C009
IC001
IC002
8
5
1
C010
R003
R004
Q007
CN003
1
5
10
16
NM-1
1-632-333-13
6
1-632-333-
13
A
B
C
1
2
3
4
5
6

NM-1 BOARD

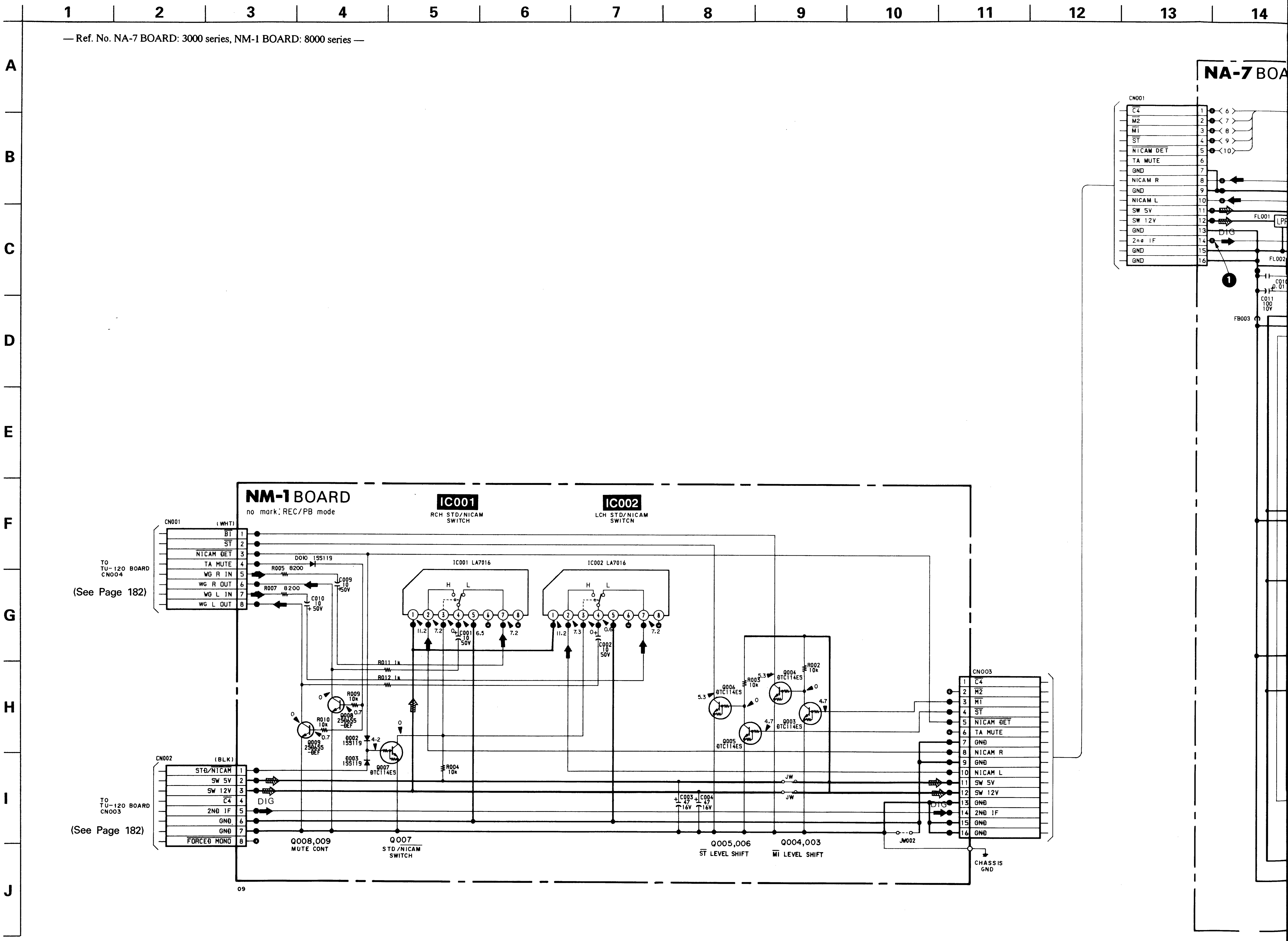
D002	A-3
D003	A-5
D010	A-2
IC001	B-4
IC002	B-4
Q001	B-2
Q002	B-2
Q003	A-1
Q004	A-1
Q005	B-1
Q006	B-1
Q007	B-5
Q008	A-3
Q009	A-4

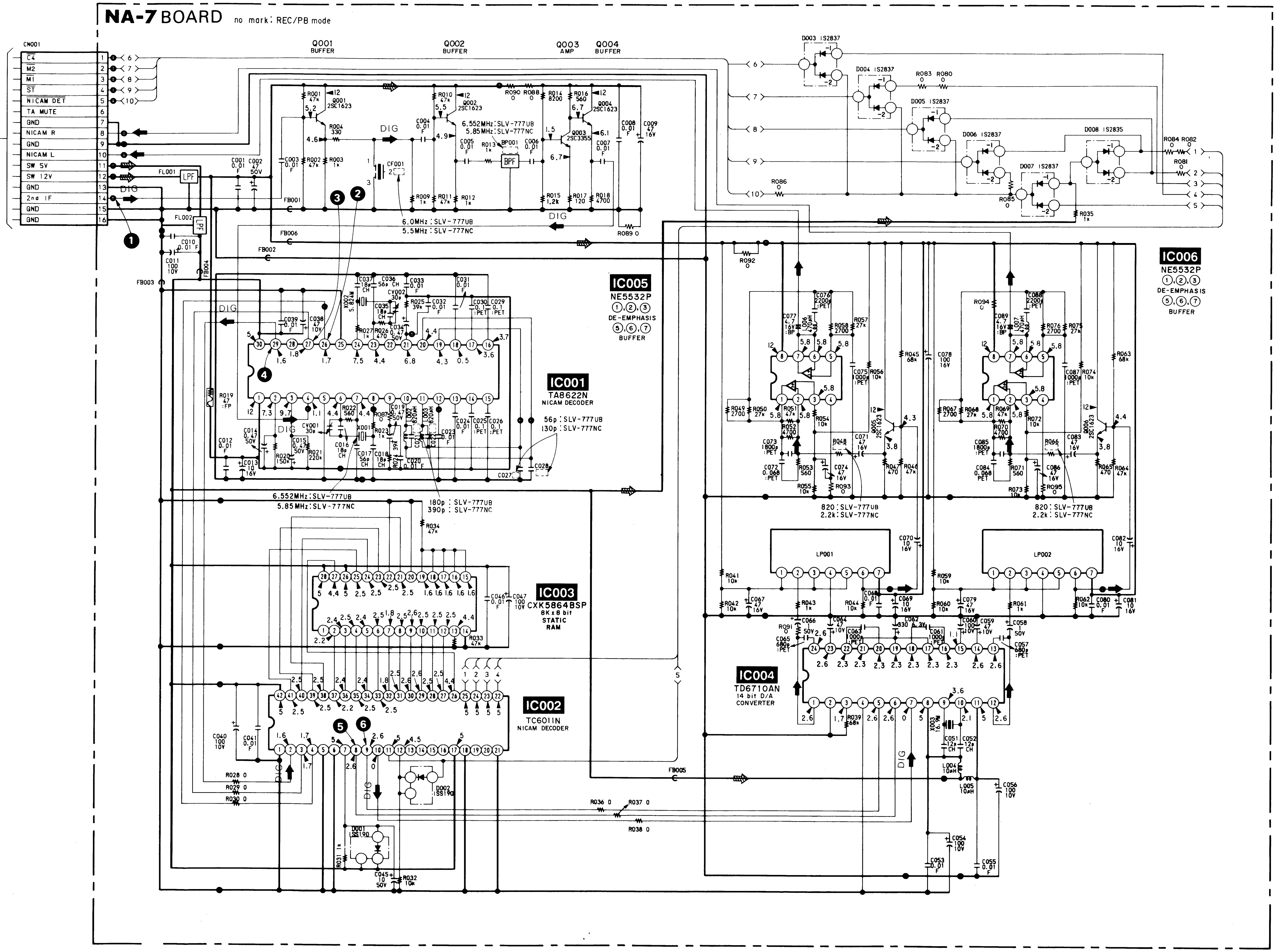
NA-7 BOARD E-E mode



NA-7 (NICAM DECODER), NM-1 (NICAM SELECTOR) SCHEMATIC DIAGRAMS

— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
NM-1 BOARD
no mark: REC/PB mode
IC001
RCH STD/NICAM SWITCH
IC002
LCH STD/NICAM SWITCN
CN001 (WHT)
1 BI
2 ST
3 NICAM DET
4 TA MUTE
5 WG R IN
6 WG R OUT
7 WG L IN
8 WG L OUT
TO TU-120 BOARD CN004
(See Page 182)
CN002 (BLK)
1 STD/NICAM
2 SW 5V
3 SW 12V
4 C4
5 2ND IF
6 GND
7 GND
8 FORCED MONO
TO TU-120 BOARD CN003
(See Page 182)
DIG
D010 1SS119
R005 8200
R007 8200
C009 10 50V
C010 10 50V
IC001 LA7016
IC002 LA7016
H
L
11.2
7.2
7.3
0
0.6
6.5
C001 10 50V
C002 10 50V
R011 1k
R012 1k
R009 10k
R010 10k
Q008 2SD655-DEF
Q009 2SD655-DEF
0.7
4.2
D002 1SS119
D003 1SS119
Q007 DTC114ES
R004 10k
Q008,009 MUTE CONT
Q007 STD/NICAM SWITCH
Q006 DTC114ES
Q004 DTC114ES
Q003 DTC114ES
Q005 DTC114ES
R003 10k
R002 10k
5.3
4.7
JW
C003 47 16V
C004 47 16V
Q005,006 ST LEVEL SHIFT
Q004,003 MI LEVEL SHIFT
JW002
CN003
1 C4
2 M2
3 MI
4 ST
5 NICAM DET
6 TA MUTE
7 GND
8 NICAM R
9 GND
10 NICAM L
11 SW 5V
12 SW 12V
13 GND
14 2ND IF
15 GND
16 GND
CHASSIS GND
09
NA-7 BOA
CN001
C4
M2
MI
ST
NICAM DET
TA MUTE
GND
NICAM R
GND
NICAM L
SW 5V
SW 12V
GND
2nd IF
GND
GND
DIG
FL001
LPF
FL002
C010 0.01
C011 100 10V
FB003
1


NA-7 BOARD no mark: REC/PB mode
CN001
C4
M2
MI
ST
NICAM DET
TA MUTE
GND
NICAM R
GND
NICAM L
SW 5V
SW 12V
GND
2nd IF
GND
GND
Q001 BUFFER
Q002 BUFFER
Q003 AMP
Q004 BUFFER
DIG
LPF
FL001
FL002
BPF
CF001
6.552MHz: SLV-777UB
5.85MHz: SLV-777NC
6.0MHz: SLV-777UB
5.5MHz: SLV-777NC
IC005 NE5532P ①,②,③ DE-EMPHASIS ⑤,⑥,⑦ BUFFER
IC006 NE5532P ①,②,③ DE-EMPHASIS ⑤,⑥,⑦ BUFFER
IC001 TA8622N NICAM DECODER
56p: SLV-777UB
130p: SLV-777NC
180p: SLV-777UB
390p: SLV-777NC
IC003 CXK5864BSP 8K x 8 bit STATIC RAM
IC002 TC6011N NICAM DECODER
IC004 TD6710AN 14 bit D/A CONVERTER
820: SLV-777UB
2.2k: SLV-777NC
LP001
LP002
D003 1S2837
D004 1S2837
D005 1S2837
D006 1S2837
D007 1S2837
D008 1S2835
D001 1SS190
D002 1SS190
FB001
FB002
FB003
FB004
FB005
FB006

• SIGNAL PATH

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC				➡
PB				

TU-120 (TUNER) PRINTED WIRING BOARD

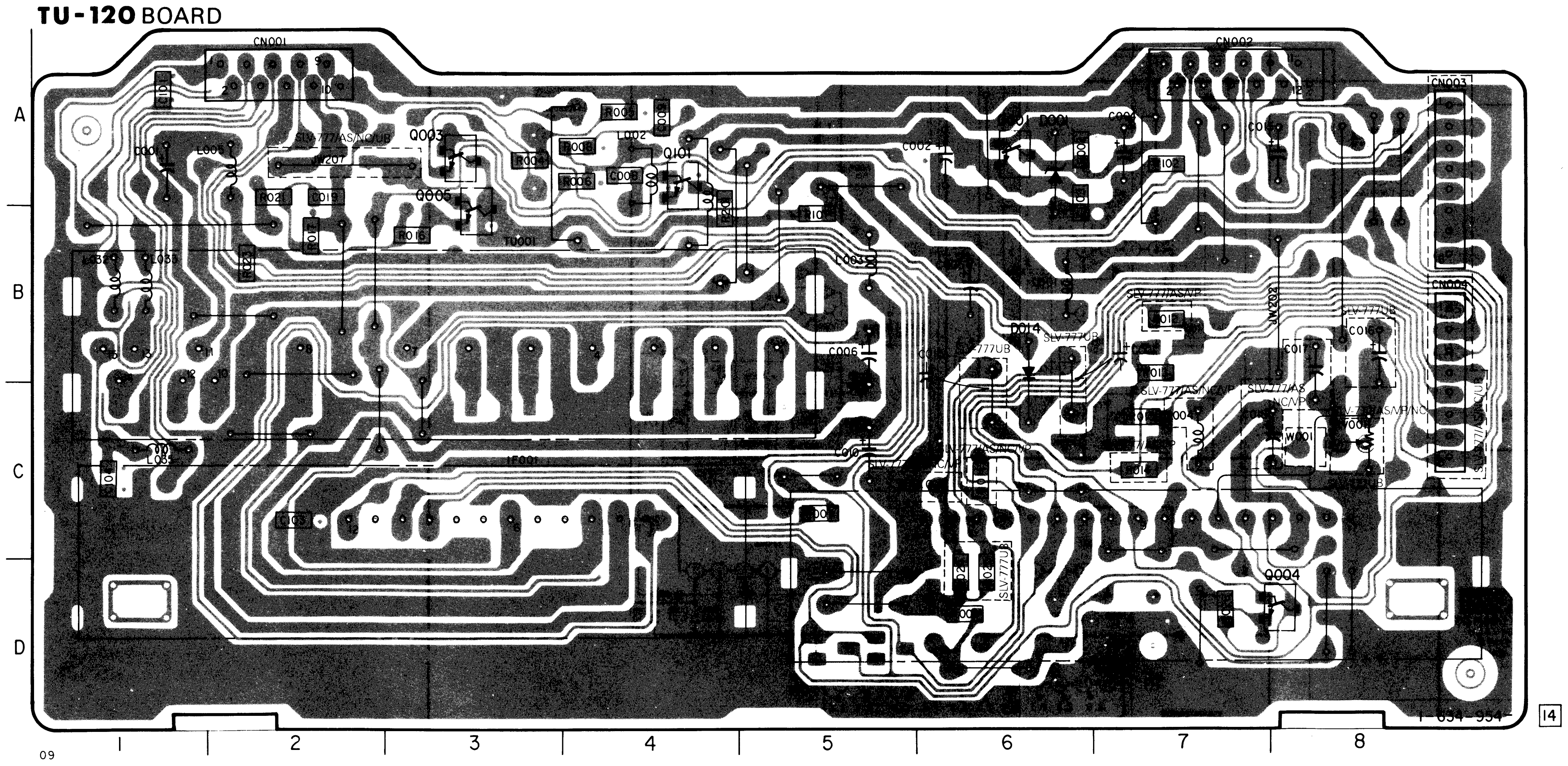
— Ref. No. TU-120 BOARD: 2000 series —

DIODE

D001	⚠8-719-110-78	DIODE	RD33ES-B2
D014	8-719-911-19	DIODE	1SS119

TRANSISTOR

Q001	⚠8-729-901-78	TRANSISTOR	2SC2412K-R
Q003	8-729-901-78	TRANSISTOR	2SC2412K-R
Q004	8-729-900-98	TRANSISTOR	DTC143TK
Q005	8-729-901-78	TRANSISTOR	2SC2412K-R
Q101	8-729-901-78	TRANSISTOR	2SC2412K-R

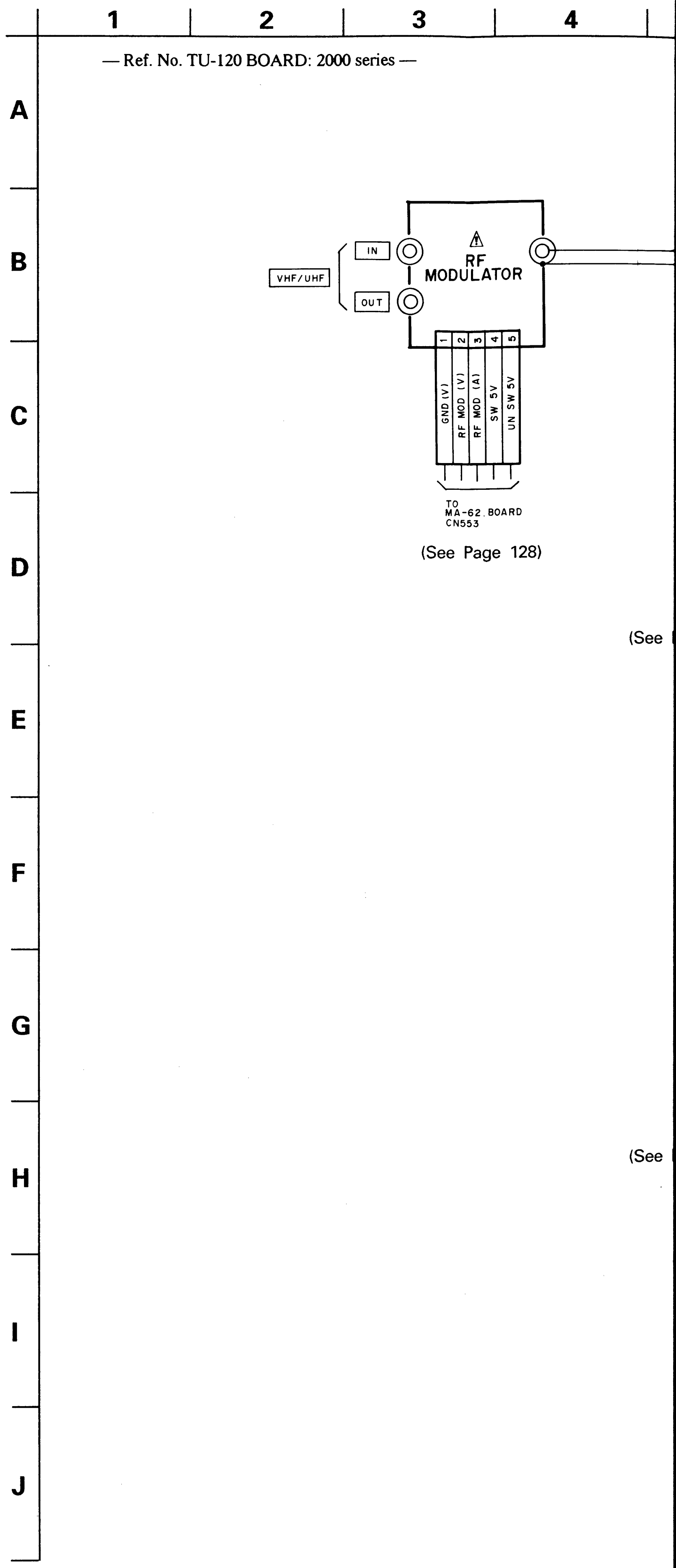

TU-120 BOARD
CN001
CN002
CN003
CN004
D001
D014
Q001
Q003
Q004
Q005
Q101
SLV-777/AS/NC/UB
SLV-777/AS/VP
SLV-777UB
IF001
T0001
A
B
C
D
1
2
3
4
5
6
7
8
09
14

TU-120 BOARD

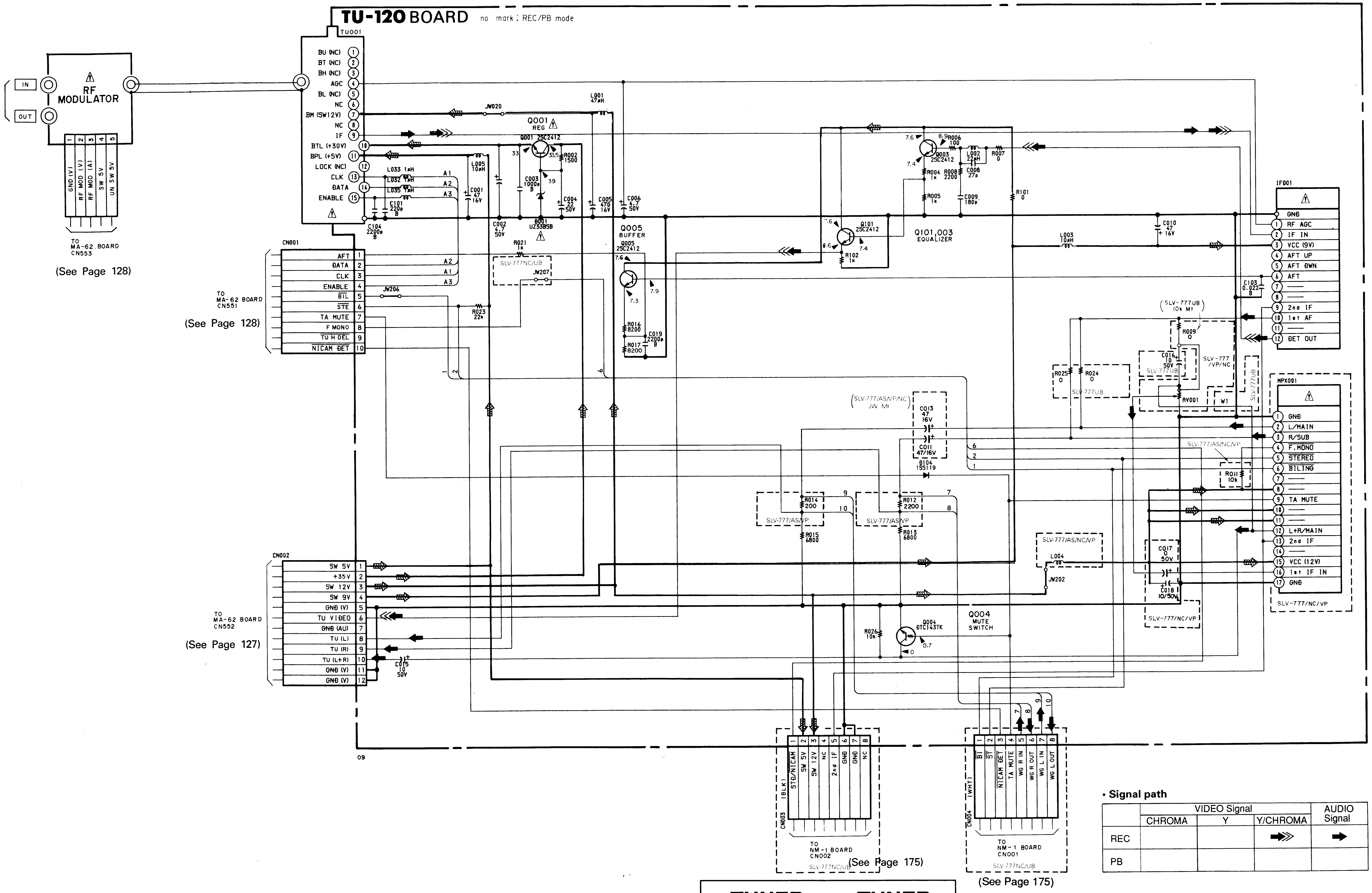
D001	A-6
D014	B-6
Q001	A-6
Q003	A-3
Q004	D-8
Q005	A-3
Q101	A-4

TU-120 (TUNER) SCHEMATIC DIAGRAM

— Ref. No. TU-120 BOARD: 2000 series —


1
2
3
4
A
B
C
D
E
F
G
H
I
J
VHF/UHF
IN
OUT
RF MODULATOR
1
2
3
4
5
GND (V)
RF MOD (V)
RF MOD (A)
SW 5V
UN SW 5V
TO MA-62 BOARD CN553
(See Page 128)
(See
(See

00 series —


TU-120 BOARD
no mark : REC/PB mode
TU001
BU (NC) 1
BT (NC) 2
BH (NC) 3
AGC 4
BL (NC) 5
NC 6
BM (SW12V) 7
NC 8
IF 9
BTL (+30V) 10
BPL (+5V) 11
LOCK (NC) 12
CLK 13
DATA 14
ENABLE 15
IN
OUT
RF MODULATOR
GND (V)
RF MOD (V)
RF MOD (A)
SW 5V
UN SW 5V
TO MA-62 BOARD CN553
(See Page 128)
CN001
AFT 1
DATA 2
CLK 3
ENABLE 4
BIL 5
STE 6
TA MUTE 7
F MONO 8
TU H DEL 9
NICAM DET 10
TO MA-62 BOARD CN551
(See Page 128)
CN002
SW 5V 1
+35V 2
SW 12V 3
SW 9V 4
GND (V) 5
TU VIDEO 6
GND (AU) 7
TU (L) 8
TU (R) 9
TU (L+R) 10
GND (V) 11
GND (V) 12
TO MA-62 BOARD CN552
(See Page 127)
JW020
L001 47μH
Q001 REG
Q001 2SC2412
33
33.5
39
R002 1500
L005 10μH
L033 1μH
L032 1μH
L035 1μH
A1
A2
A3
C101 220p B
C104 2200p B
C001 47 16V
C002 4.7 50V
C003 1000p B
C004 22 50V
C005 470 16V
C006 4.7 50V
D001 UZ33BSB
R021 1k
SLV-777NC/UB
JW207
JW206
R023 22k
Q005 BUFFER
Q005 2SC2412
7.6
7.3
7.9
R016 8200
R017 8200
C019 2200p B
Q003 2SC2412
7.6
8.9
7.4
R006 100
L002 22μH
R007 0
R004 1k
R008 2200
C008 27p
R005 1k
C009 180p
R101 0
Q101 2SC2412
7.6
8.6
7.4
R102 1k
Q101,003 EQUALIZER
L003 10μH
C010 47 16V
IF001
GND
1 RF AGC
2 IF IN
3 VCC (9V)
4 AFT UP
5 AFT DWN
6 AFT
7 —
8 —
9 2nd IF
10 1st AF
11 —
12 DET OUT
C103 0.022 B
(SLV-777UB 10k Mt)
R009 0
C016 10 50V
SLV-777UB
SLV-777 /VP/NC
RV001
W1
SLV-777UB
R025 0
R024 0
SLV-777UB
(SLV-777/AS/VP/NC) JW Mt
C013 47 16V
C011 47/16V
D104 1SS119
6
2
1
SLV-777/AS/NC/VP
R011 10k
MPX001
1 GND
2 L/MAIN
3 R/SUB
4 F.MONO
5 STEREO
6 BILING
7 —
8 —
9 TA MUTE
10 —
11 —
12 L+R/MAIN
13 2nd IF
14 —
15 VCC (12V)
16 1st IF IN
17 GND
SLV-777/NC/VP
R014 200
R015 6800
SLV-777/AS/VP
9
10
R012 2200
R013 6800
SLV-777/AS/VP
7
8
SLV-777/AS/NC/VP
L004
JW202
C017 0 50V
C018 10/50V
SLV-777/NC/VP
Q004 MUTE SWITCH
Q004 DTC143TK
R026 10k
0.7
0
C015 10 50V
09
CN003 (BLK)
1 STD/NICAM
2 SW 5V
3 SW 12V
4 NC
5 2nd IF
6 GND
7 GND
8 NC
TO NM-1 BOARD CN002
SLV-777NC/UB
(See Page 175)
CN004 (WHT)
1 BI
2 ST
3 NICAM DET
4 TA MUTE
5 WG R IN
6 WG R OUT
7 WG L IN
8 WG L OUT
7
8
9
10
TO NM-1 BOARD CN001
SLV-777NC/UB
(See Page 175)

- **Signal path**

	VIDEO Signal			AUDIO Signal
	CHROMA	Y	Y/CHROMA	
REC			➡≫	➡
PB				

TUNER **TUNER**

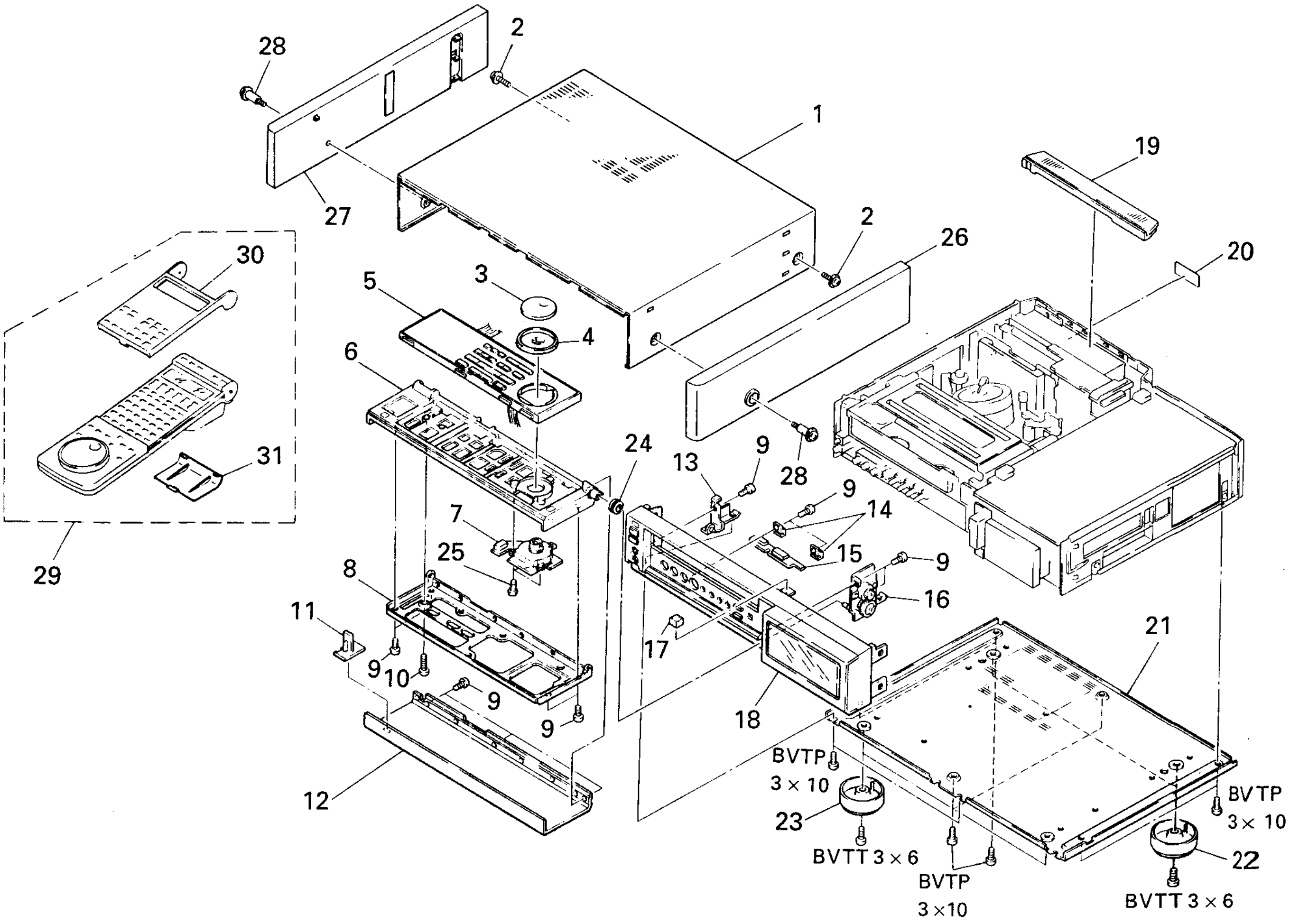
SECTION 5
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

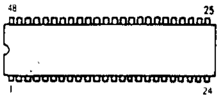
5-1. FRONT PANEL AND CABINET ASSEMBLIES



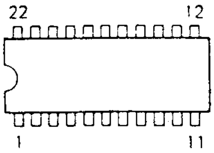
Ref. No.	Part No.	Description	Remark
1	- - -	COVER, UPPER (SLV-777AS)	
1	3-743-670-51	COVER, UPPER (SLV-777/UB/VP/NC)	
2	3-710-901-21	SCREW (3X8), TAPPING	
3	3-744-018-01	DIAL, JOG	
4	3-744-019-11	RING, SHUTTLE	
5	1-466-346-31	SWITCH BLOCK, CONTROL	
6	X-3743-546-1	PLATE ASSY, ORNAMENTAL, DOOR	
7	*1-635-216-11	JS-20 BOARD	
8	*3-743-699-01	PLATE, FULCRUM, DOOR	
9	4-921-277-11	SCREW (B2.6X8), TAPPING, BIND	
10	4-921-277-21	SCREW (B2.6X12), TAPPING, BIND	
11	3-743-650-01	COVER, POWER LAMP	
12	X-3940-125-1	DOOR ASSY, FRONT	
13	X-3743-536-1	PLATE (L) ASSY, FULCRUM	
14	*3-743-640-01	RETAINER, PC BOARD	
15	*1-635-218-11	TK-12 BOARD (SLV-777/VP/NC/AS)	
15	*1-635-218-21	TK-12 BOARD (SLV-777UB)	
16	A-6759-487-B	PLATE (R) BLOCK ASSY, FULCRUM	
17	9-911-841-17	CUSHION (B)	
18	X-3940-121-1	PANEL ASSY, FRONT (SLV-777/AS)	
18	X-3940-123-1	PANEL ASSY, FRONT (SLV-777VP)	
18	X-3940-124-1	PANEL ASSY, FRONT (SLV-777NC)	
18	X-3940-126-1	PANEL ASSY, FRONT (SLV-777UB)	
19	3-743-644-01	COVER, POWER	
20	*3-940-837-01	LABEL, MODEL NUMBER (NO.2) (SLV-777UB)	
20	*3-940-838-01	LABEL, MODEL NUMBER (NO.2) (SLV-777	
20	*3-940-839-01	LABEL, MODEL NUMBER (NO.2) (SLV-777VP)	
20	*3-940-840-01	LABEL, MODEL NUMBER (NO.2) (SLV-777NC)	
20	*3-941-294-01	LABEL, MODEL NUMBER (NO.2) (SLV-777AS)	
21	3-743-671-01	PLATE, BOTTOM	
22	3-749-328-01	FOOT	
23	3-940-667-11	FOOT	
24	*3-744-012-02	RING, GEAR	
25	3-744-068-01	SCREW (2.6), TAPPING	
26	X-3940-177-1	WOOD (R) ASSY, SIDE	
27	X-3940-178-1	WOOD (L) ASSY, SIDE	
28	3-743-601-01	SCREW, SIDE WOOD	
29	1-465-472-11	REMOTE COMMANDER (RMT-V5B)	30, 31
30	3-749-148-11	COVER, TIMER	
31	3-744-080-00	COVER, BATTERY	

4-3. SEMICONDUCTORS

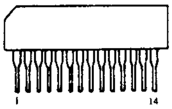
AN3231K



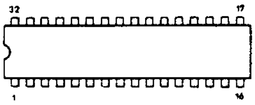
AN3592K



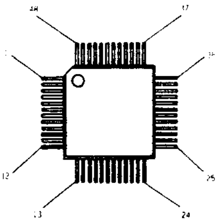
AN3916



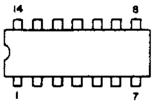
AN3932S
M50554



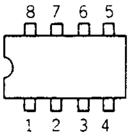
AN3972FC


48
37
36
12
25
13
24

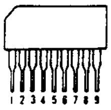
BA10324
LM324N
MC14001BF
MC14066BCP
MC14070BCP
SDA5642



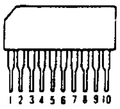
BA4560F
TK15120M
CXL5003P
LM358N
M5201P
MSM6989RS
NE5532P
RC4556D



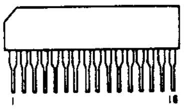
BA6138
LA7954
LVA519A
LVA522S



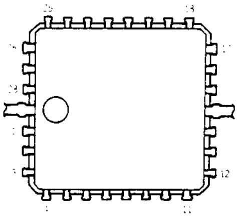
BA6238A


1 2 3 4 5 6 7 8 9 10

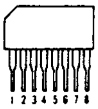
BA7077



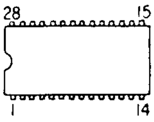
CAT35C202P
HA11535MP
HA11567MP
HA118088MP
HA12115MP



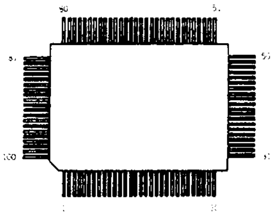
CX20061
LA7016



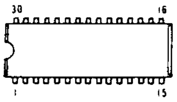
CXK5864BSP
MC68HC05P7



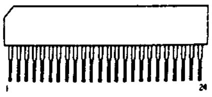
CXP80624
HD9410
MB89794B


80
51
81
50
100
31
1
30

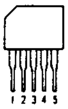
HA118016NT
HA118019NT
TA8662NT



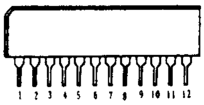
HM53461ZP



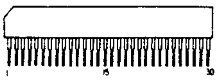
LA7213



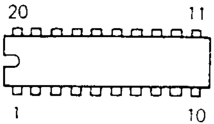
LA7222


1 2 3 4 5 6 7 8 9 10 11 12

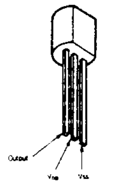
LA7297



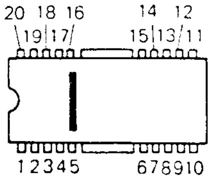
M52435P



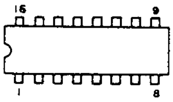
RC78L05A
S-8053ALR
S-8053HNB


Output
Vin
Vss

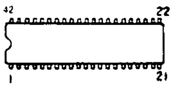
TA8424F


20 18 16
19 17
14 12
15 13 11
1 2 3 4 5
6 7 8 9 10

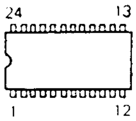
TC4052BPHB



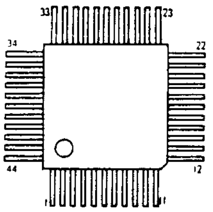
TC6011N



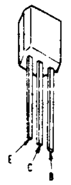
TD6710N



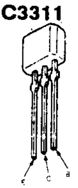
μPD75004G3


33
23
34
22
44
12
1
11

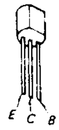
2SA1115
2SC1740
2SC2603
DTA114ES
DTA144ES
DTC114ES
DTA144ES



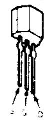
2SA1309
2SD1020TP
2SC3311



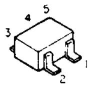
2SA933S



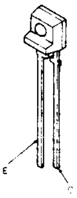
2SK381



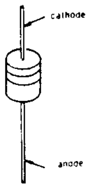
FMS1



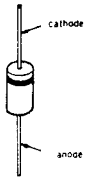
PT4831F1S



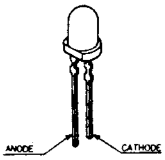
11ES2
1SS119
1SS133
ERA82
RD13ES
RD6.2ES
UZ-33BSB


cathode
anode

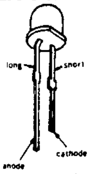
RD4.7EL
RD5.1EL
UZ-6.2BSB


cathode
anode

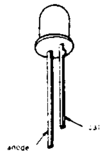
SLR-34DC3
SLR-54MC3


ANODE
CATHODE

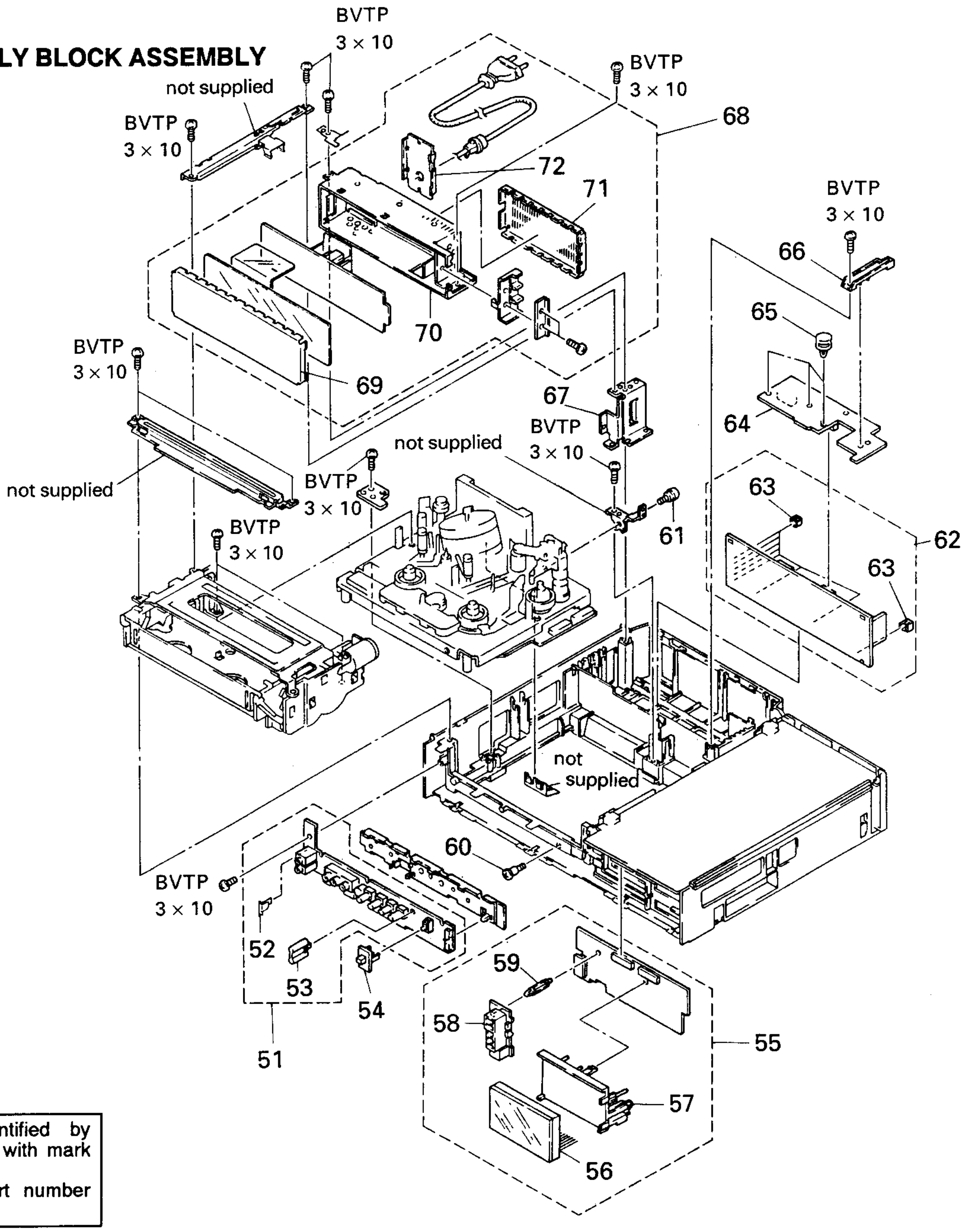
SLR-54DC3


long
short
anode
cathode

SLR-54VC3


cathode
anode

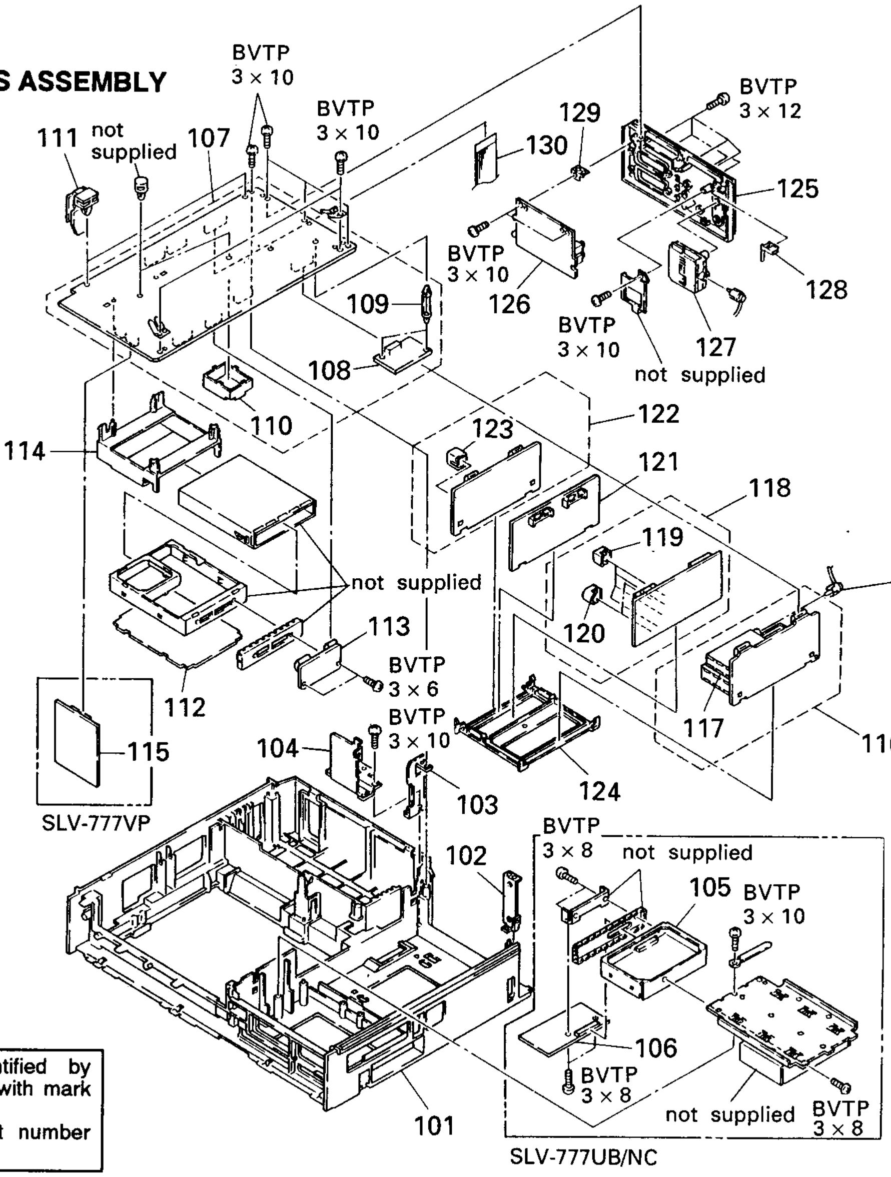
5-2. POWER SUPPLY BLOCK ASSEMBLY


BVTP
3 x 10
not supplied
BVTP
3 x 10
BVTP
3 x 10
68
72
71
BVTP
3 x 10
66
65
70
69
BVTP
3 x 10
67
BVTP
3 x 10
64
not supplied
not supplied
BVTP
3 x 10
63
BVTP
3 x 10
62
61
63
not
supplied
60
BVTP
3 x 10
52
53
54
51
59
58
55
57
56

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
51	*A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-777/NC/AS)	52, 53
51	*A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-777VP)	52, 53
51	*A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-777UB)	52, 53
52	*3-749-306-01	PLATE, GROUND, MF	
53	*3-744-056-01	COVER, LED	
54	3-743-636-01	KNOB, SLIDE	
55	*A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-777/AS)	56-59
55	*A-6756-036-A	MF-94 BOARD, COMPLETE (SLV-777NC)	56-59
55	*A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-777VP)	56-59
55	*A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-777UB)	56-59
56	1-519-633-11	INDICATION TUBE, FLUORESCENT (ND201)	
57	*3-743-637-01	HOLDER, FL	
58	*1-635-214-31	RM-42 BOARD (SLV-777/VP/NC/AS)	
58	*1-635-214-43	RM-42 BOARD (SLV-777UB)	
59	*3-682-419-51	HOLDER, P.C.B	
60	3-741-948-01	SCREW (3), SPECIAL (+) TAPPING	
61	3-736-055-01	SCREW (3X8), TAPPING	
62	*A-6727-277-A	YC-65 BOARD, COMPLETE (SLV-777/NC/AS)	63
62	*A-6727-281-A	YC-65 BOARD, COMPLETE (SLV-777VP)	63
62	*A-6727-290-A	YC-65 BOARD, COMPLETE (SLV-777UB)	63
63	3-729-971-01	COVER, VOLUME	
64	*1-637-558-11	VI-97 BOARD	
65	3-682-057-21	SPACER (SMALL)	
66	*3-743-641-01	RETAINER (RIGHT), YC	
67	*3-743-643-01	BRACKET (LEFT), POWER	
68	⚠ 1-413-601-11	SWITCHING BLOCK (SLV-777/NC/AS)	69-72
68	⚠ 1-413-608-11	SWITCHING BLOCK (SLV-777VP)	69-72
68	⚠ 1-413-609-11	SWITCHING BLOCK (SLV-777UB)	69-72
69	*3-743-645-01	LID, UPPER	
70	*3-743-649-11	CASE, MAIN	
71	*3-743-646-01	PLATE, BOTTOM (SLV-777/VP/NC/AS)	
71	*3-743-646-11	PLATE, BOTTOM (SLV-777UB)	
72	*3-743-648-11	PANEL, CONNECTOR	

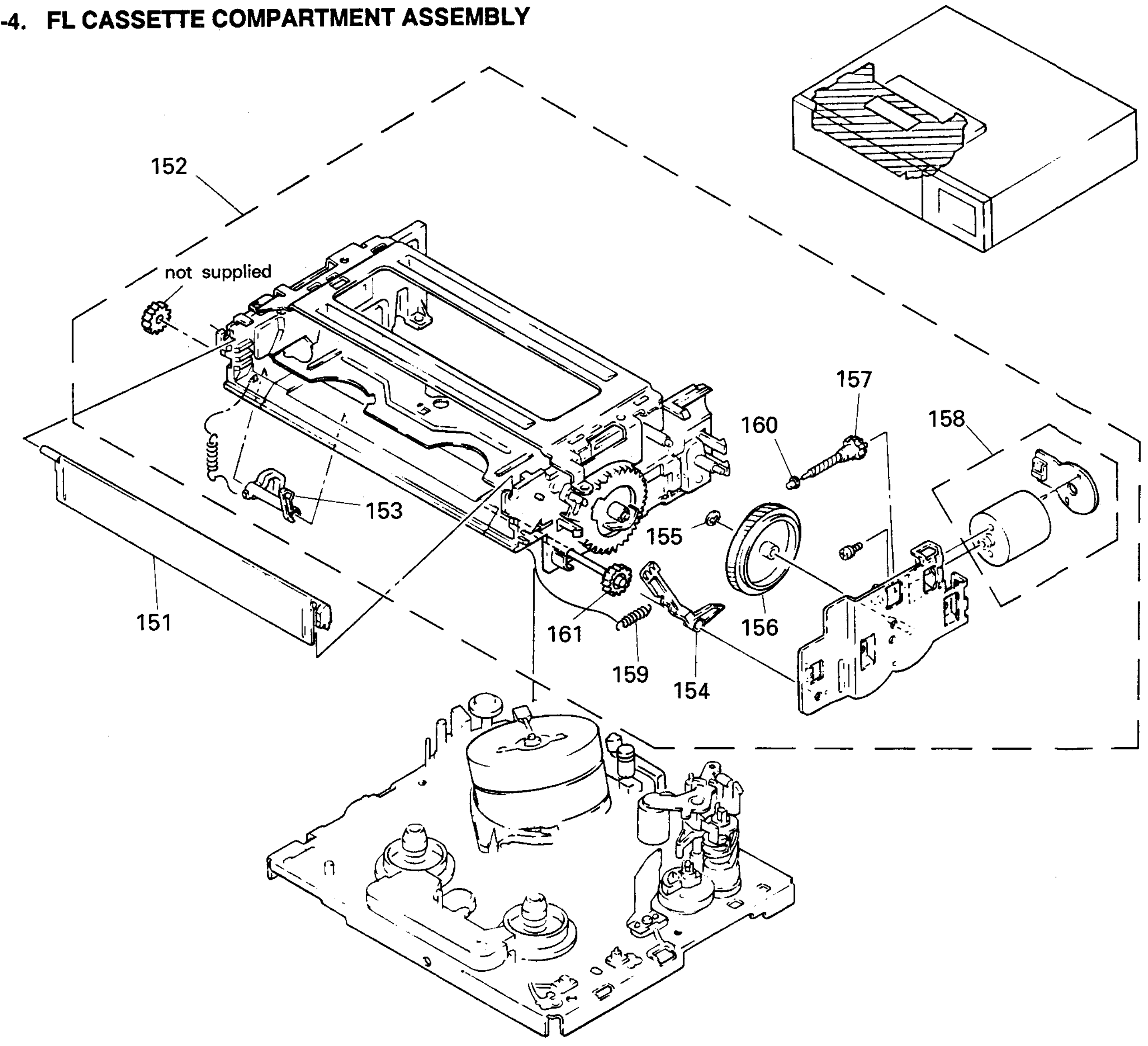
5-3. MAIN BOARDS ASSEMBLY


BVTP 3 × 10
111
not supplied
107
BVTP 3 × 10
129
130
BVTP 3 × 12
125
BVTP 3 × 10
126
109
108
BVTP 3 × 10
127
not supplied
128
110
122
123
114
121
118
119
not supplied
131
113
120
BVTP 3 × 6
112
BVTP 3 × 10
117
116
115
104
124
103
SLV-777VP
BVTP 3 × 8
not supplied
102
105
BVTP 3 × 10
106
BVTP 3 × 8
not supplied
BVTP 3 × 8
101
SLV-777UB/NC

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

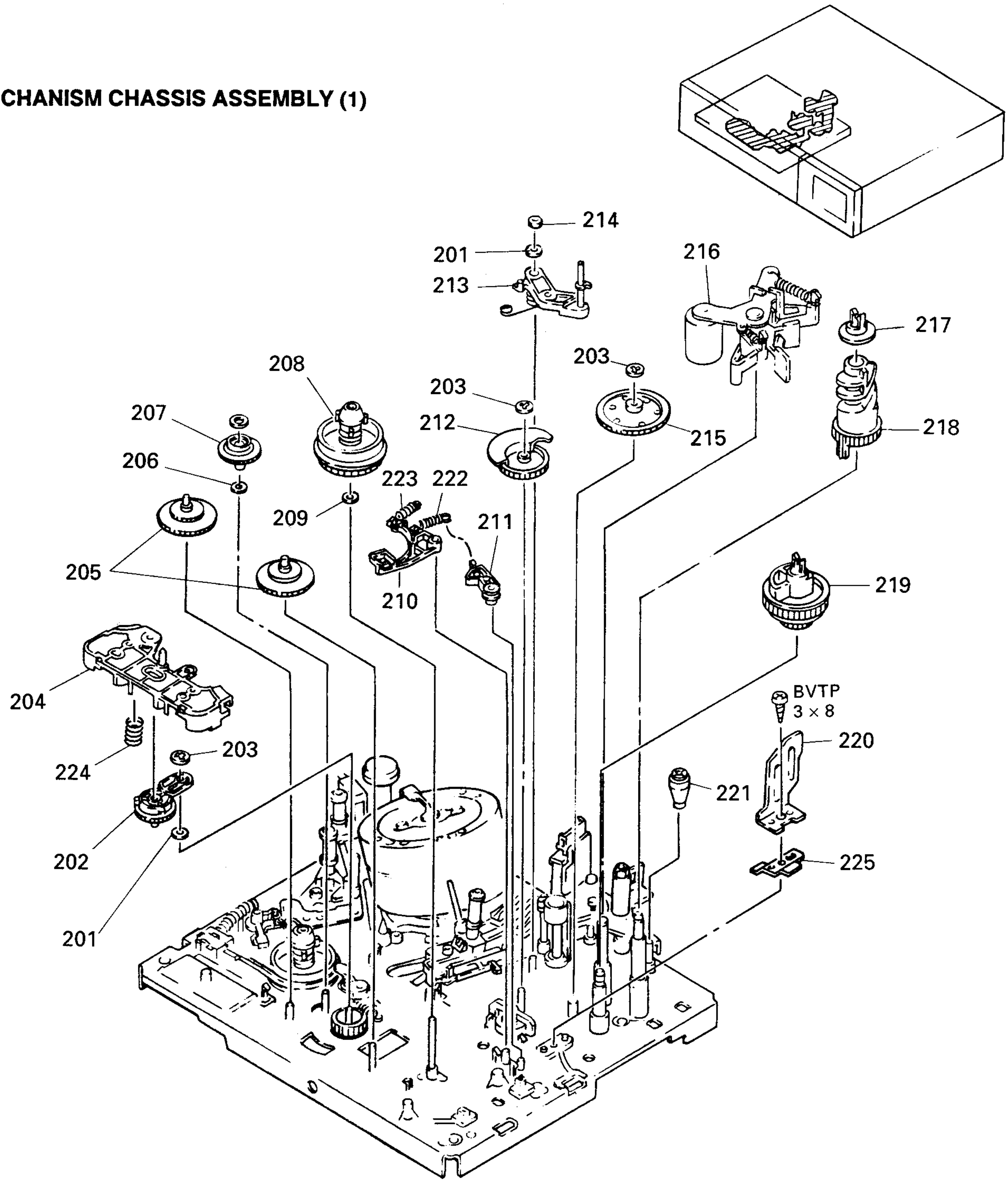
Ref. No.	Part No.	Description	Remark
101	*A-6771-254-A	FRAME BLOCK ASSY	
102	*3-743-676-01	PLATE (RIGHT), GROUND, MA	
103	*3-743-675-01	PLATE (LEFT), GROUND, MA	
104	*3-743-642-01	BRACKET (RIGHT), POWER	
105	*A-6721-371-A	NA-7 BOARD, COMPLETE (SLV-777NC)	
105	*A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-777UB)	
106	*1-632-333-13	NM-1 BOARD (SLV-777UB/NC)	
107	*A-6717-596-A	MA-62 BOARD, COMPLETE (SLV-777/NC/AS)	108-110
107	*A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-777VP)	108-110
107	*A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-777UB)	108-110
108	*1-635-225-11	SI-10 BOARD	
109	*3-682-419-41	HOLDER, P.C.B	
110	*3-743-679-01	CASE, SHIELD, AU	
111	*3-743-678-01	HINGE, PC BOARD	
112	*A-6727-280-A	DG-11 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
112	*A-6727-293-A	DG-11 BOARD, COMPLETE (SLV-777UB)	
113	*1-637-536-11	DI-43 BOARD	
114	*3-749-334-01	HOLDER, DG	
115	*1-637-444-11	VP-24 BOARD (SLV-777VP)	
116	*A-6721-369-A	TU-120 BOARD, COMPLETE (SLV-777)	117
116	*A-6721-370-A	TU-120 BOARD, COMPLETE (SLV-777NC)	117
116	*A-6721-372-A	TU-120 BOARD, COMPLETE (SLV-777VP)	117
116	*A-6721-375-A	TU-120 BOARD, COMPLETE (SLV-777UB)	117
116	*A-6721-377-A	TU-120 BOARD, COMPLETE (SLV-777AS)	117
117	⚠ 1-465-260-11	TUNER, ET (TU001) (SLV-777/VP/NC)	
117	⚠ 1-465-262-11	TUNER, ET (TU001) (SLV-777UB)	
117	⚠ 1-465-465-11	TUNER, ET (TU001) (SLV-777AS)	
118	*A-6713-377-A	HF-9 BOARD, COMPLETE (SLV-777/VP/NC/AS)	119, 120
118	*A-6713-417-A	HF-9 BOARD, COMPLETE (SLV-777UB)	119, 120
119	3-729-971-01	COVER, VOLUME	
120	3-738-216-01	COVER, VOLUME	
121	*A-6727-278-A	PI-20 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
121	*A-6727-291-A	PI-20 BOARD, COMPLETE (SLV-777UB)	
122	*A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-777/NC/AS)	123
122	*A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-777VP)	123
122	*A-6727-292-A	CG-10 BOARD, COMPLETE (SLV-777UB)	123
123	*3-738-015-01	COVER, (DIA.6) CARBON VR	
124	*3-743-673-01	HOLDER, PC BOARD	
125	3-940-827-01	TERMINAL BOARD (PAL)	
126	*A-6754-198-A	IO-40 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
126	*A-6754-215-A	IO-40 BOARD, COMPLETE (SLV-777UB)	
127	⚠ 1-466-347-31	MODULATOR, RF (RFU-2028) (SLV-777UB)	
127	⚠ 1-466-328-31	MODULATOR, RF (RFU-2027) (SLV-777/VP/NC/AS)	
128	*3-743-677-01	PLATE, GROUND, RF	
129	*3-940-828-01	PLATE, GROUND, INPUT OUTPUT	
130	1-575-746-11	WIRE, FLAT TYPE (22 CORE)	
131	1-558-924-41	CABLE, PIN	

5-4. FL CASSETTE COMPARTMENT ASSEMBLY


152
not supplied
157
160
158
153
155
156
151
161
159
154

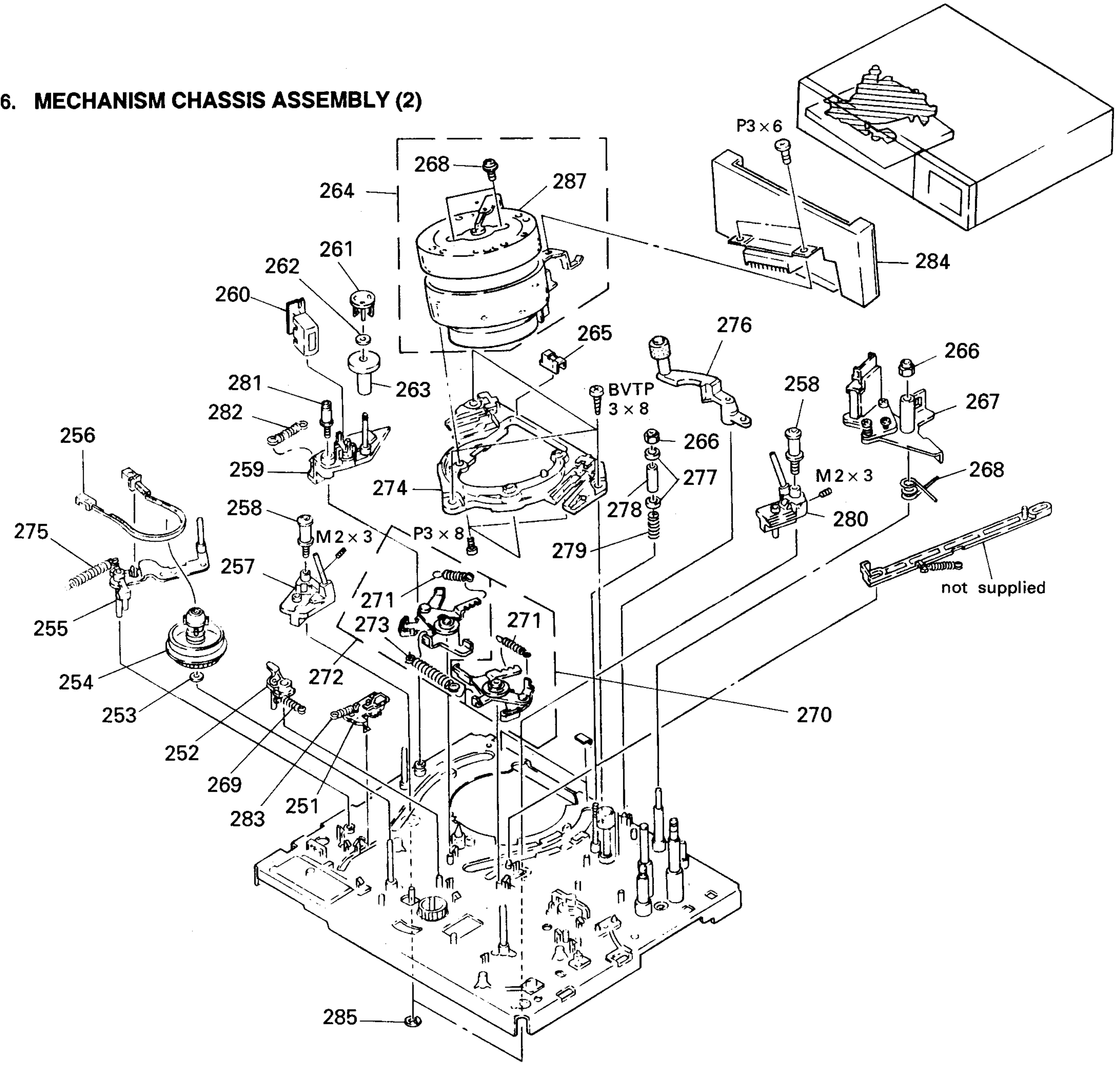
Ref. No.	Part No.	Description	Remark
151	X-3940-122-1	DOOR ASSY, FL	
152	A-6751-426-A	FL BLOCK ASSY (F3)	153-161
153	3-736-163-01	LEVER, ERASING PROTECTION	
154	3-736-167-01	ARM, DOOR SWITCHING	
155	3-696-510-01	WASHER (3), STOPPER	
156	3-736-164-01	WHEEL (FL), WORM	
157	3-736-100-01	GEAR (FL), WORM	
158	X-3727-784-1	MOTOR ASSY (LOADING) (M904)	
159	3-738-285-01	SPRING, TENSION	
160	3-716-144-02	RETAINER, WORM	
161	X-3727-775-2	GEAR (RIGHT) ASSY, MIDWAY	

5-5. MECHANISM CHASSIS ASSEMBLY (1)


214
201
213
216
217
208
203
203
207
212
215
218
206
223
222
209
211
205
210
219
204
BVTP
3 × 8
220
203
224
221
202
225
201

Ref. No.	Part No.	Description	Remark
201	3-701-438-11	WASHER, 2.5	
202	X-3727-776-1	ARM ASSY, PENDULUM	
203	3-669-595-00	WASHER (2), STOPPER	
204	3-736-172-02	RELEASE, LOCK, REEL	
205	X-3727-795-1	GEAR ASSY, RELAY	
206	3-736-074-01	RETAINER (SMALL), THRUST	
207	3-736-037-01	GEAR, REW	
208	X-3727-798-1	TABLE ASSY, REEL	
209	3-738-212-21	RETAINER, THRUST, REEL TABLE	
210	X-3733-335-1	BRAKE ASSY (AT), T SOFT	
211	3-736-105-01	ARM, REV BRAKE	
212	3-736-143-01	GEAR, RVS CAM	
213	X-3729-911-1	ARM ASSY, RVS	
214	3-736-740-01	NUT (M2X0.25), NYLON	
215	3-736-116-01	GEAR, COMMUNICATION	
216	X-3727-770-1	PINCH ROLLER BLOCK ASSY	
217	3-736-111-01	STOPPER	
218	3-736-136-01	CAM, ELEVATOR	
219	3-736-135-01	GEAR, PRESS CAM	
220	3-736-109-01	PLATE, OPEN, LID	
221	3-738-250-01	SCREW, AC ADJUSTMENT	
222	3-736-025-01	SPRING (REV BRAKE), TENSION	
223	3-736-024-01	SPRING, TENSION	
224	3-736-020-11	SPRING, COMPRESSION	
225	3-744-227-01	SPRING (ATOM), FL GROUND	
226	3-736-069-01	RETAINER, SPRING	

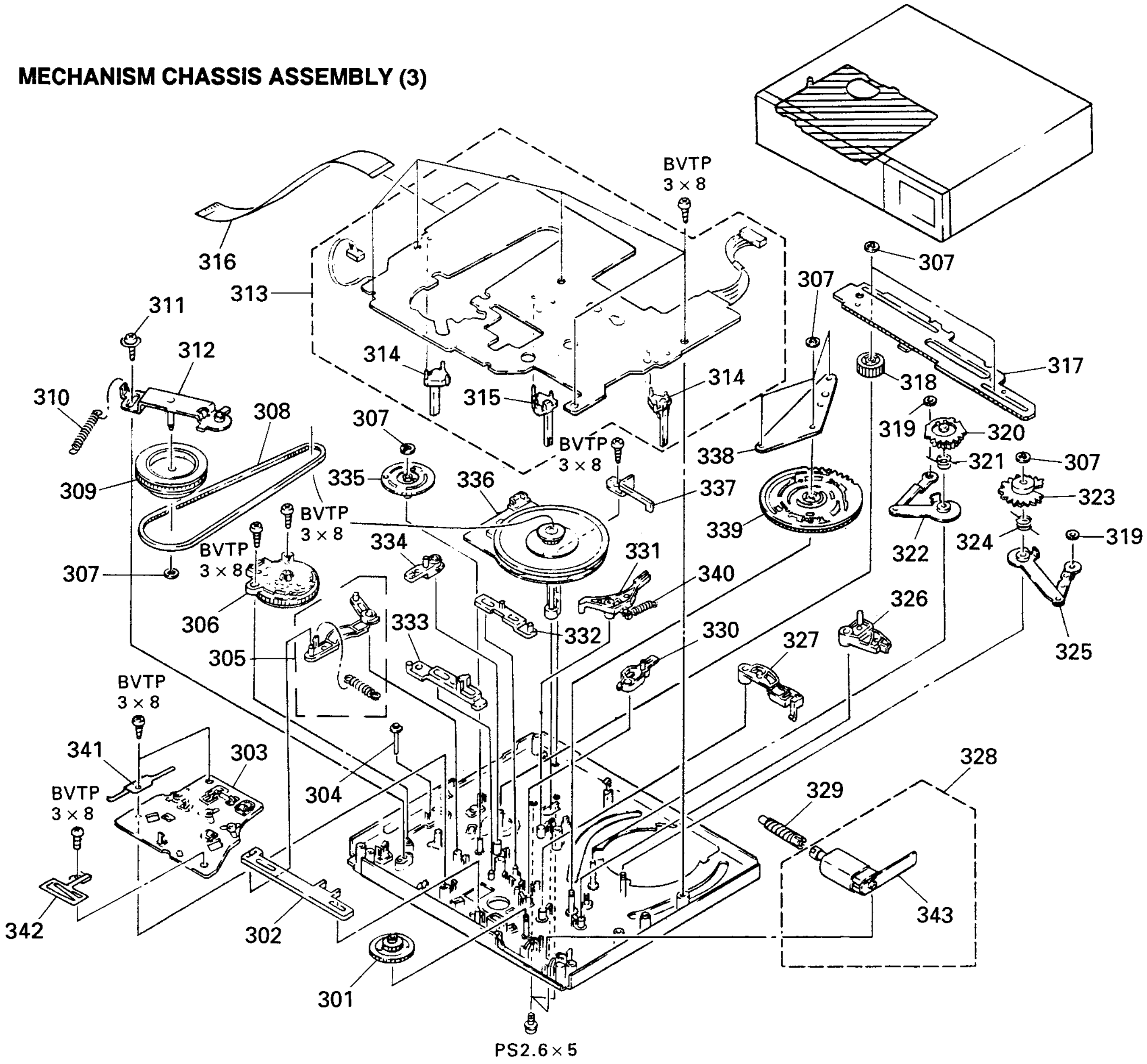
5-6. MECHANISM CHASSIS ASSEMBLY (2)



268
287
264
261
262
260
P3×6
284
265
276
266
263
281
282
BVTP 3×8
258
267
256
266
259
274
277
M2×3
268
278
280
258
M2×3
P3×8
275
279
257
271
not supplied
273
271
255
254
272
270
253
252
269
283
251
285

Ref. No.	Part No.	Description	Remark
251	A-6759-483-A	TAKE-UP BLOCK ASSY (AT), S	
252	3-736-075-01	BRAKE, S SOFT	
253	3-738-212-21	RETAINER, THRUST, REEL TABLE	
254	X-3729-935-3	TABLE ASSY, REEL, SUPPLY	
255	3-736-151-11	ARM (POM), TENSION REGULATOR	
256	X-3727-797-1	BAND ASSY, TENSION REGULATOR	
257	X-3727-786-1	SHUTTLE (LEFT) ASSY	
258	X-3733-301-1	ROLLER ASSY, GUIDE	
259	X-3727-767-1	BASE ASSY, STABILIZER	
260	1-543-647-11	HEAD, FE	
261	3-736-082-01	RETAINER, TS THRUST	
262	3-741-925-01	RING, RETAINING	
263	X-3727-771-1	STABLILIZER ASSY, TAPE	
264	1-550-535-11	DRUM ASSY (DZH-17A-R)	286, 287
265	3-736-795-01	STOPPER	
266	3-736-041-01	NUT (N3), NYLON	
267	A-6761-129-A	HEAD BLOCK ASSY, ACE	
268	3-736-042-01	SPRING, TORSION	
269	3-736-047-01	SPRING (S SOFT), TENSION	
270	X-3729-926-1	BRAKE ASSY (2), T	271
271	3-738-220-01	SPRING (MAIN BRAKE 2), TENSION	
272	X-3733-336-2	BRAKE ASSY (2) (AT), S	271
273	3-738-221-01	SPRING (MAIN BRAKE 1), TENSION	
274	X-3727-791-2	BASE ASSY, DRUM	
275	3-733-389-11	SPRING, TENSION	
276	A-6747-267-A	ARM BLOCK ASSY (S), C ROLLER	
277	3-736-733-01	FLANGE, 7 GUIDE	
278	3-736-730-01	SLEEVE, #7 GUIDE	
279	3-749-099-01	SPRING (#7 GUIDE), COMPRESSION	
280	X-3727-787-1	SHUTTLE (RIGHT) ASSY	
281	X-3727-788-1	ROLLER ASSY, GUIDE, #2	
282	3-736-745-01	SPRING	
283	3-738-284-01	SPRING, TENSION	
284	*A-6727-137-A	RP-63 BOARD, COMPLETE (SLV-777/VP/NC/AS)	
284	*A-6727-294-A	RP-63 BOARD, COMPLETE (SLV-777UB)	
285	3-736-073-01	SLIDER, POLYETHYLENE	
286	2-643-205-01	SCREW (PSW) 3X8	
287	1-550-536-11	DRUM ASSY, ROTARY UPPER (DZR-17-R)	

5-7. MECHANISM CHASSIS ASSEMBLY (3)


BVTP
3 × 8
316
313
311
312
310
308
309
307
314
315
314
307
317
318
319
320
321
307
323
BVTP
3 × 8
338
335
336
337
339
BVTP
3 × 8
BVTP
3 × 8
334
331
324
319
322
307
306
340
326
325
333
332
330
305
327
BVTP
3 × 8
341
303
328
BVTP
3 × 8
304
329
343
342
302
301
PS2.6 × 5

Ref. No.	Part No.	Description	Remark
301	3-736-015-01	WHEEL (CAM), WORM	
302	3-736-158-01	PLATE, SLIDE, PENDULUM	
303	A-6739-084-A	CHASSIS BLOCK ASSY, SUB	
304	3-736-091-01	PIN, SWITCH	
305	X-3729-924-1	ARM, PENDULUM FUNCTION	
306	1-571-920-11	SWITCH, ROTARY	
307	3-669-595-00	WASHER (2), STOPPER	
308	3-736-013-01	BELT, TIMING	
309	X-3727-782-1	PULLEY ASSY	
310	3-736-089-01	SPRING, TENSION	
311	3-733-386-01	SCREW (3X8), WASHER	
312	X-3727-761-1	ARM ASSY, ADJUSTMENT	
313	*A-6754-218-A	MD-49 BOARD, COMPLETE	314, 315
314	8-729-926-31	PHOTO TRANSISTOR PT483F1S (Q001, Q002)	
315	8-719-985-00	DIODE GL451VS1 (LED) (D001)	
316	1-575-745-11	WIRE, FLAT TYPE (19 CORE)	
317	3-736-177-01	PLATE, SLIDE, MODE	
318	3-733-394-01	GEAR, RVS RELAY	
319	3-736-073-01	SLIDER, POLYETHYLENE	
320	3-736-148-01	GEAR (RIGHT), THREADING	
321	3-736-092-01	SPRING (RIGHT), TORSION	
322	X-3727-777-1	ARM (RIGHT) ASSY, THREADING	
323	3-736-147-01	GEAR (LEFT), THREADING	
324	3-736-040-01	SPRING (LEFT), TORSION	
325	X-3727-778-1	ARM (LEFT) ASSY, THREADING	
326	3-736-142-01	ARM, TENSION REGULATOR FUNCTION	
327	3-736-140-01	ARM, S TAKE-UP	
328	X-3733-302-1	MOTOR ASSY, CAM (M903)	343
329	3-733-395-01	GEAR (CAM), WORM	
330	3-733-397-01	ARM, BRAKE FUNCTION	
331	X-3733-338-1	BRAKE ASSY (AT), CAP	
332	3-733-398-01	PLATE, SLIDE, BRAKE	
333	3-736-103-01	PLATE, SLIDE, LIMITER	
334	3-736-016-01	ARM, LIMITER FUNCTION	
335	3-736-170-01	GEAR, RKB CAM	
336	8-835-394-01	MOTOR, DC U-26F (CAPSTAN) (M902)	
337	3-736-744-01	RETAINER, ROTOR	
338	3-733-396-01	HOLDER, CAM GEAR	
339	3-736-176-01	GEAR, CAM	
340	3-738-237-01	SPRING (CAP BRAKE), TENSION	
341	3-741-950-01	SPRING (AT), LEAF, SC GROUND	
342	*3-744-024-01	PLATE, GROUND, MD	
343	*1-633-460-11	CA-41 BOARD	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- SEMICONDUCTORS
  In each case, U: μ, for example:
  UA...: μA..., UPA...: μPA..., UPB...: μPB..., UPC...: μPC..., UPD...: μPD...
- CAPACITORS
  MF : μF, PF : μμF
- COILS
  MMH : mH, UH : μH

Ref. No.	Part No.	Description				Remark
	*A-6713-417-A	HF-9 BOARD, COMPLETE (SLV-777UB) ******************** (Ref.No.1000 series)				
	*A-6713-377-A	HF-9 BOARD, COMPLETE (SLV-777/AS/VP/NC) ******************** (Ref.No.1000 series)				
	3-738-216-01	COVER, VOLUME				
	3-729-971-01	COVER, VOLUME				
		CAPACITOR				
C001	1-124-239-00	ELECT	6.8MF	20%	16V	
C002	1-130-487-00	MYLAR	0.022MF	5%	50V	
C003	1-123-369-00	ELECT	4.7MF	20%	25V	
C004	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C005	1-123-321-00	ELECT	220MF	20%	16V	
C006	1-123-875-11	ELECT	10MF	20%	50V	
C007	1-130-483-00	MYLAR	0.01MF	5%	50V	
C009	1-123-381-00	ELECT	2.2MF	20%	50V	
C011	1-123-356-00	ELECT	10MF	20%	25V	
C012	1-123-356-00	ELECT	10MF	20%	25V	
C013	1-126-101-11	ELECT	100MF	20%	16V	
C014	1-126-157-11	ELECT	10MF	20%	16V	
C015	1-126-157-11	ELECT	10MF	20%	16V	
C016	1-124-791-11	ELECT	1MF	20%	50V	
C017	1-124-257-00	ELECT	2.2MF	20%	50V	
C018	1-126-101-11	ELECT	100MF	20%	16V	
C019	1-123-356-00	ELECT	10MF	20%	25V	
C020	1-123-356-00	ELECT	10MF	20%	25V	
C022	1-123-381-00	ELECT	2.2MF	20%	50V	
C024	1-130-483-00	MYLAR	0.01MF	5%	50V	
C025	1-123-875-11	ELECT	10MF	20%	50V	
C026	1-123-321-00	ELECT	220MF	20%	16V	
C027	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C028	1-123-369-00	ELECT	4.7MF	20%	25V	
C029	1-130-487-00	MYLAR	0.022MF	5%	50V	
C030	1-124-239-00	ELECT	6.8MF	20%	16V	
C031	1-126-163-11	ELECT	4.7MF	20%	25V	
C032	1-126-301-11	ELECT	1MF	20%	50V	
C033	1-123-380-00	ELECT	1MF	20%	50V	
C034	1-130-471-00	MYLAR	0.001MF	5%	50V	
C035	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C036	1-123-369-00	ELECT	4.7MF	20%	25V	
C037	1-123-369-00	ELECT	4.7MF	20%	25V	
C038	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C041	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C042	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C043	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C044	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C045	1-130-493-00	MYLAR	0.068MF	5%	50V	
C050	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C051	1-130-483-00	MYLAR	0.01MF	5%	50V	
C052	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C053	1-123-333-00	ELECT	100MF	20%	16V	
C054	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C055	1-123-369-00	ELECT	4.7MF	20%	25V	
C056	1-123-369-00	ELECT	4.7MF	20%	25V	
C057	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C058	1-130-471-00	MYLAR	0.001MF	5%	50V	
C059	1-123-380-00	ELECT	1MF	20%	50V	
C060	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C061	1-126-101-11	ELECT	100MF	20%	16V	
C065	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
		CONNECTOR				
CN001	*1-563-258-11	SOCKET, CONNECTOR 15P				
CN002	*1-563-258-11	SOCKET, CONNECTOR 15P				
		DIODE				
D001	8-719-911-19	DIODE 1SS119				
D002	8-719-911-19	DIODE 1SS119				
D003	8-719-104-34	DIODE 1S2835				
		FILTER				
FL001	1-236-569-11	BPF (1.7MHZ)				
FL002	1-236-570-11	BPF (1.3MHZ)				
		IC				
IC001	8-759-420-18	IC AN3972FC				
IC002	8-759-420-15	IC AN3932S				
IC003	8-759-982-21	IC RC78L05A				
IC004	8-759-924-46	IC BA4560F				
IC005	8-759-946-44	IC TK15120M				
IC006	8-759-946-44	IC TK15120M				
		RESISTOR				
R001	1-249-417-11	METAL	1K	5%	1/4W	
R002	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R003	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R004	1-214-723-00	CARBON	560	5%	1/4W	
R005	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R006	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R007	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R008	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R009	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R011	1-216-097-00	METAL GLAZE	100K	5%	1/10W	

HF-9 MA-62

Ref. No.	Part No.	Description	Remark
R012	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R013	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R014	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R015	1-214-723-00	CARBON 560 5% 1/4W	
R016	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R017	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R018	1-249-417-11	METAL 1K 5% 1/4W	
R019	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R020	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R021	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R022	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R023	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R024	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R025	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R026	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R027	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R028	1-216-076-00	METAL GLAZE 13K 5% 1/10W	
R029	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R032	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R033	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R034	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R035	1-249-427-11	CARBON 6.8K 5% 1/4W	
R036	1-249-427-11	CARBON 6.8K 5% 1/4W	
R037	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R041	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R042	1-249-428-11	CARBON 8.2K 5% 1/4W	
R043	1-249-428-11	CARBON 8.2K 5% 1/4W	
R044	1-249-430-11	CARBON 12K 5% 1/4W	
R045	1-249-430-11	CARBON 12K 5% 1/4W	
R048	1-249-441-11	CARBON 100K 5% 1/4W	
R049	1-249-441-11	CARBON 100K 5% 1/4W	
R068	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R201	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R202	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R203	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R301	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R302	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R303	1-216-296-00	METAL GLAZE 0 5% 1/8W	

VARIABLE RESISTOR

Ref. No.	Part No.	Description	Remark
RV002	1-230-522-11	RES, ADJ, METAL GLAZE 4.7K	
RV003	1-238-167-11	RES, ADJ, CARBON 22K	
RV004	1-238-167-11	RES, ADJ, CARBON 22K	
RV005	1-230-498-11	RES, ADJ, CARBON 47K	
RV006	1-230-498-11	RES, ADJ, CARBON 47K	
RV007	1-238-167-11	RES, ADJ, CARBON 22K	
RV008	1-230-522-11	RES, ADJ, METAL GLAZE 4.7K	
RV009	1-238-167-11	RES, ADJ, CARBON 22K	

****

Ref. No.	Part No.	Description	Remark
	*A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-777/VP) ********************* (Ref.No.7000 series)	
	*A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-777UB) ********************* (Ref.No.7000 series)	
	*A-6717-596-A	MA-62 BOARD, COMPLETE (SLV-777/AS/NC) ********************* (Ref.No.7000 series)	
	*9-911-839-99	RETAINER (B), MICROPHONE	
	*3-682-419-41	HOLDER, P.C.B	
	*3-743-679-01	CASE, SHIELD, AU	
	3-831-441-99	SPACER	

CAPACITOR

Ref. No.	Part No.	Description	Remark
C101	1-123-875-11	ELECT 10MF 20% 50V	
C102	1-123-875-11	ELECT 10MF 20% 50V	
C103	1-123-875-11	ELECT 10MF 20% 50V	
C104	1-123-875-11	ELECT 10MF 20% 50V	
C200	1-162-294-31	CERAMIC 0.001MF 10% 50V	
C231	1-124-477-11	ELECT 47MF 20% 16V	
C232	1-124-471-00	ELECT 1000MF 20% 6.3V	
C233	1-124-477-11	ELECT 47MF 20% 16V	
C234	1-124-443-00	ELECT 100MF 20% 10V	
C235	1-124-471-00	ELECT 1000MF 20% 6.3V	
C250	1-109-675-11	MICA 120PF 5% 500V	
C251	1-124-126-00	ELECT 47MF 20% 10V	
C252	1-164-083-11	CERAMIC 680PF 10% 50V	
C254	1-102-123-00	CERAMIC 0.0033MF 10% 50V	
C255	1-124-791-11	ELECT 1MF 20% 50V	
C256	1-124-902-00	ELECT 0.47MF 20% 50V	
C257	1-124-126-00	ELECT 47MF 20% 10V	
C258	1-130-484-00	MYLAR 0.012MF 5% 50V	
C259	1-126-160-11	ELECT 1MF 20% 50V	
C261	1-126-233-11	ELECT 22MF 20% 25V	
C262	1-124-126-00	ELECT 47MF 20% 10V	
C264	1-102-978-00	CERAMIC 220PF 5% 50V	
C265	1-124-791-11	ELECT 1MF 20% 50V	
C266	1-124-126-00	ELECT 47MF 20% 10V	
C268	1-124-791-11	ELECT 1MF 20% 50V	
C269	1-126-160-11	ELECT 1MF 20% 50V	
C270	1-124-791-11	ELECT 1MF 20% 50V	
C271	1-161-019-91	CERAMIC 0.033MF 10% 25V	
C273	1-161-056-00	CERAMIC 0.027MF 10% 25V	
C274	1-126-163-11	ELECT 4.7MF 20% 50V	
C275	1-124-126-00	ELECT 47MF 20% 10V	
C276	1-164-087-11	CERAMIC 0.0015MF 10% 50V	
C277	1-161-051-00	CERAMIC 0.01MF 10% 25V	
C278	1-136-561-11	FILM 0.0068MF 10% 400V	
C280	1-130-483-00	MYLAR 0.01MF 5% 50V	
C281	1-161-056-00	CERAMIC 0.027MF 10% 25V	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description				Remark
C282	1-124-126-00	ELECT	47MF	20%	10V	
C284	1-164-087-11	CERAMIC	0. 0015MF	10%	50V	
C285	1-162-290-31	CERAMIC	470PF	10%	50V	
C295	1-161-379-00	CERAMIC	0. 01MF	30%	16V	
C298	1-161-379-00	CERAMIC	0. 01MF	30%	16V	
C304	1-123-875-11	ELECT	10MF	20%	50V	
C305	1-123-875-11	ELECT	10MF	20%	50V	
C306	1-123-875-11	ELECT	10MF	20%	50V	
C401	1-123-875-11	ELECT	10MF	20%	50V	
C402	1-124-791-11	ELECT	1MF	20%	50V	
C403	1-123-875-11	ELECT	10MF	20%	50V	
C404	1-161-043-00	CERAMIC	0. 0022MF	20%	16V	
C405	1-124-499-11	ELECT	1MF	20%	50V	
C406	1-124-126-00	ELECT	47MF	20%	10V	
C407	1-164-070-11	CERAMIC	100PF	5%	50V	
C408	1-164-096-11	CERAMIC	0. 01MF		50V	
C409	1-164-093-11	CERAMIC	0. 0047MF	10%	25V	
C410	1-164-096-11	CERAMIC	0. 01MF		50V	
C411	1-124-126-00	ELECT	47MF	20%	10V	
C413	1-130-483-00	MYLAR	0. 01MF	5%	50V	
C414	1-102-121-00	CERAMIC	0. 0022MF	10%	50V	
C415	1-102-947-00	CERAMIC	10PF	0. 5PF	50V	
C416	1-162-847-11	CERAMIC	0. 047MF	20%	16V	
C422	1-124-126-00	ELECT	47MF	20%	10V	
C423	1-126-233-11	ELECT	22MF	20%	25V	
C425	1-130-487-00	MYLAR	0. 022MF	5%	50V	
C426	1-124-925-11	ELECT	2. 2MF	20%	50V	
C427	1-130-489-00	MYLAR	0. 033MF	5%	50V	
C428	1-130-491-00	MYLAR	0. 047MF	5%	50V	
C431	1-162-290-31	CERAMIC	470PF	10%	50V	
C501	1-164-096-11	CERAMIC	0. 01MF		50V	
C504	1-123-875-11	ELECT	10MF	20%	50V	
C505	1-124-472-11	ELECT	470MF	20%	10V	
C506	1-123-875-11	ELECT	10MF	20%	50V	
C507	1-101-006-00	CERAMIC	0. 047MF		50V	
C508	1-124-478-11	ELECT	100MF	20%	25V	
C509	1-102-953-00	CERAMIC	18PF	5%	50V	
C510	1-102-953-00	CERAMIC	18PF	5%	50V	
C515	1-164-096-11	CERAMIC	0. 01MF		50V	
C519	1-164-096-11	CERAMIC	0. 01MF		50V	
C520	1-162-211-31	CERAMIC	33PF	5%	50V	
C522	1-164-068-11	CERAMIC	82PF	5%	50V	
C523	1-164-096-11	CERAMIC	0. 01MF		50V	
C524	1-124-463-00	ELECT	0. 1MF	20%	50V	
C525	1-162-290-31	CERAMIC	470PF	10%	50V	
C531	1-124-925-11	ELECT	2. 2MF	20%	50V	
C536	1-161-772-11	CERAMIC	0. 1MF	20%	16V	
C537	1-123-875-11	ELECT	10MF	20%	50V	
C538	1-124-478-11	ELECT	100MF	20%	25V	
C539	1-102-978-00	CERAMIC	220PF	5%	50V	
C541	1-161-379-00	CERAMIC	0. 01MF	30%	25V	

Ref. No.	Part No.	Description				Remark
C542	1-124-477-11	ELECT	47MF	20%	25V	
C543	1-162-849-11	CERAMIC	0. 068MF	20%	16V	
C544	1-102-074-00	CERAMIC	0. 001MF	10%	50V	
C545	1-102-074-00	CERAMIC	0. 001MF	10%	50V	
C802	1-123-875-11	ELECT	10MF	20%	50V	
C809	1-123-875-11	ELECT	10MF	20%	50V	
C811	1-123-875-11	ELECT	10MF	20%	50V	
C812	1-124-927-11	ELECT	4. 7MF	20%	50V	
C813	1-124-791-11	ELECT	1MF	20%	50V	
C814	1-102-973-00	CERAMIC	100PF	10%	50V	
C815	1-162-211-31	CERAMIC	33PF	5%	50V	
C816	1-123-875-11	ELECT	10MF	20%	50V	
C818	1-161-379-00	CERAMIC	0. 01MF	30%	25V	
C818	1-161-379-00	CERAMIC	0. 01MF	30%	16V	
C820	1-162-835-11	CERAMIC	0. 0047MF	10%	16V	
C821	1-164-085-11	CERAMIC	0. 001MF	10%	50V	
C838	1-126-157-11	ELECT	10MF	20%	16V	
C840	1-126-157-11	ELECT	10MF	20%	16V	
C841	1-126-157-11	ELECT	10MF	20%	16V	
C842	1-126-157-11	ELECT	10MF	20%	16V	
C844	1-164-096-11	CERAMIC	0. 01MF		50V	
C846	1-164-096-11	CERAMIC	0. 01MF		50V	

CONNECTOR

Ref. No.	Part No.	Description
CN004	1-563-596-11	CONNECTOR, FLEXIBLE 19P
CN007	1-563-596-11	CONNECTOR, FLEXIBLE 19P
CN511	1-568-093-11	CONNECTOR (PLUG) 20P
CN512	1-568-094-11	CONNECTOR (PLUG) 22P
CN513	*1-506-470-11	PIN, CONNECTOR 5P
CN514	1-506-469-11	PIN, CONNECTOR 4P
CN516	*1-568-783-11	PIN, CONNECTOR 6P
CN517	*1-568-783-31	PIN, CONNECTOR 6P
CN521	1-568-089-11	CONNECTOR (PLUG) 12P
CN522	1-568-087-11	CONNECTOR (PLUG) 8P
CN531	1-506-472-11	PIN, CONNECTOR 7P
CN532	*1-568-783-11	PIN, CONNECTOR 6P
CN541	1-506-478-11	PIN, CONNECTOR 13P
CN542	*1-568-787-11	PIN, CONNECTOR 10P
CN551	*1-568-088-11	CONNECTOR (PLUG) 10P
CN552	1-568-089-11	CONNECTOR (PLUG) 12P
CN553	1-506-470-11	PIN, CONNECTOR 5P
CN561	1-569-695-21	CONNECTOR, BOARD TO BOARD 17P
CN562	1-569-696-21	CONNECTOR, BOARD TO BOARD 19P
CN571	*1-506-744-11	PIN, CONNECTOR 15P
CN572	*1-506-744-11	PIN, CONNECTOR 15P
CN573	*1-560-892-00	PIN, CONNECTOR 4P
CN574	*1-560-891-00	PIN, CONNECTOR 3P
CN582	1-563-599-11	CONNECTOR, FLEXIBLE 22P
CN583	1-569-763-11	CONNECTOR, BOARD TO BOARD 30P
CN584	1-569-763-11	CONNECTOR, BOARD TO BOARD 30P

When indicating parts by reference number, please include the board name.

MA-62

Ref. No.	Part No.	Description	Remark
CN585	1-568-087-11	CONNECTOR (PLUG) 8P	
CN586	1-568-087-11	CONNECTOR (PLUG) 8P	
CN587	1-506-468-11	PIN, CONNECTOR 3P	
CN591	1-566-119-11	CONNECTOR, BOARD TO BOARD 6P (SLV-777VP)	
CN594	1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P (SLV-777VP)	
CN801	1-569-761-11	CONNECTOR, BOARD TO BOARD 20P	
		DIODE	
D401	8-719-911-19	DIODE 1SS119	
D402	8-719-911-19	DIODE 1SS119	
D403	8-719-911-19	DIODE 1SS119	
D404	8-719-911-19	DIODE 1SS119	
D409	8-719-101-50	DIODE RD5.1E-L2	
D410	8-719-911-19	DIODE 1SS119	
D501	8-719-913-44	DIODE ERA82-004	
D502	8-719-911-19	DIODE 1SS119	
D505	8-719-911-19	DIODE 1SS119	
D508	8-719-101-47	DIODE RD4.7E-L2	
D516	8-719-911-19	DIODE 1SS119	
D517	8-719-911-19	DIODE 1SS119	
D518	8-719-200-82	DIODE 11ES2	
D519	8-719-109-93	DIODE RD6.2ES-B2	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D801	8-719-911-19	DIODE 1SS119	
D802	8-719-911-19	DIODE 1SS119	
D803	8-719-911-19	DIODE 1SS119	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-911-19	DIODE 1SS119	
D806	8-719-911-19	DIODE 1SS119	
D807	8-719-911-19	DIODE 1SS119	
D999	8-719-911-19	DIODE 1SS119TG	
		IC	
IC251	8-759-805-20	IC LA7297	
IC401	8-759-000-49	IC MC14066BCP	
IC402	8-759-632-58	IC M52435P	
IC403	8-759-008-70	IC LM358N	
IC404	8-759-981-85	IC RC4556D	
IC406	8-759-008-71	IC LM324N	
IC501	8-752-815-90	IC CXP80624-009Q	
IC502	⚠8-759-983-45	IC BA6238A	
IC503	8-759-035-36	IC MC68HC05P7	
IC801	8-759-152-34	IC TC4052BPHB	
IC802	8-759-923-90	IC BA4560	
IC803	8-759-208-08	IC TC4052BPHB	
IC804	8-759-923-90	IC BA4560	
IC809	8-759-822-71	IC LA7954	

Ref. No.	Part No.	Description	Remark
		JUMPER	
JW062	1-410-316-11	INDUCTOR 1UH	
JW168	1-123-875-11	ELECT 10MF 20% 50V	
		COIL	
L201	1-408-409-00	INDUCTOR 10UH	
L202	1-408-409-00	INDUCTOR 10UH	
L210	1-410-521-11	INDUCTOR 100UH	
L213	1-410-521-11	INDUCTOR 100UH	
L251	1-410-067-21	INDUCTOR 4.7MMH	
L252	1-412-092-11	INDUCTOR, SMALL TYPE	
L253	1-410-687-11	INDUCTOR 1.2MMH	
L254	1-408-426-00	INDUCTOR 270UH	
L256	8-719-911-19	DIODE 1SS119	
L400	1-410-509-11	INDUCTOR 10UH	
L501	1-408-413-00	INDUCTOR 22UH	
L502	1-408-413-00	INDUCTOR 22UH	
L503	1-408-413-00	INDUCTOR 22UH	
L504	1-410-501-11	INDUCTOR 2.2UH	
L505	1-410-501-11	INDUCTOR 2.2UH	
		IC LINK	
PS202	⚠1-532-605-00	LINK, IC (ICP-N10)	
		TRANSISTOR	
Q101	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q102	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q203	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q204	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q251	8-729-102-14	TRANSISTOR 2SD1021	
Q253	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q254	⚠8-729-140-96	TRANSISTOR 2SD774-34	
Q301	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q302	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q401	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q403	8-729-115-10	TRANSISTOR 2SK105A-10	
Q404	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q405	8-729-900-89	TRANSISTOR DTC144ES	
Q410	8-729-900-65	TRANSISTOR DTA144ES	
Q412	8-729-900-89	TRANSISTOR DTC144ES	
Q423	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q428	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q430	8-729-900-89	TRANSISTOR DTC144ES	
Q431	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q434	8-729-601-47	TRANSISTOR 2SK381-B	
Q435	8-729-601-47	TRANSISTOR 2SK381-B	
Q501	8-729-900-61	TRANSISTOR DTA114ES	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
Q502	8-729-900-61	TRANSISTOR DTA114ES	
Q503	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q504	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q505	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q506	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q507	8-729-900-61	TRANSISTOR DTA114ES	
Q508	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q514	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q515	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q516	8-729-900-80	TRANSISTOR DTC114ES	
Q517	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q518	8-729-900-89	TRANSISTOR DTC144ES	
Q519	8-729-900-65	TRANSISTOR DTA144ES	
Q701	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q801	8-729-900-89	TRANSISTOR DTC144ES	
Q802	8-729-900-89	TRANSISTOR DTC144ES	
Q803	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q805	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q807	⚠8-729-920-70	TRANSISTOR 2SC1740S-QR	

RESISTOR

Ref. No.	Part No.	Description				Remark
R101	1-249-435-11	CARBON	33K	5%	1/4W	
R102	1-249-441-11	CARBON	100K	5%	1/4W	
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-423-11	CARBON	3.3K	5%	1/4W	
R105	1-249-423-11	CARBON	3.3K	5%	1/4W	
R106	1-249-441-11	CARBON	100K	5%	1/4W	
R107	1-249-435-11	CARBON	33K	5%	1/4W	
R108	1-249-417-11	CARBON	1K	5%	1/4W	
R136	1-249-413-11	CARBON	470	5%	1/4W	
R137	1-249-413-11	CARBON	470	5%	1/4W	
R138	⚠1-249-385-11	CARBON	2.2	5%	1/4W	F
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R210	1-249-405-11	CARBON	100	5%	1/4W	
R211	1-249-405-11	CARBON	100	5%	1/4W	
R222	1-249-410-11	CARBON	270	5%	1/4W	
R224	1-249-406-11	CARBON	120	5%	1/4W	
R225	1-249-405-11	CARBON	100	5%	1/4W	
R227	1-249-403-11	CARBON	68	5%	1/4W	
R232	1-247-804-11	CARBON	75	5%	1/4W	
R252	1-249-393-11	CARBON	10	5%	1/4W	
R253	1-249-416-11	CARBON	820	5%	1/4W	
R254	1-249-411-11	CARBON	330	5%	1/4W	
R255	1-247-885-00	CARBON	180K	5%	1/4W	
R256	1-249-429-11	CARBON	10K	5%	1/4W	
R257	1-249-437-11	CARBON	47K	5%	1/4W	
R258	1-249-439-11	CARBON	68K	5%	1/4W	
R259	1-249-419-11	CARBON	1.5K	5%	1/4W	
R260	1-247-903-00	CARBON	1M	5%	1/4W	
R261	1-247-895-00	CARBON	470K	5%	1/4W	
R262	1-249-438-11	CARBON	56K	5%	1/4W	
R263	1-249-432-11	CARBON	18K	5%	1/4W	
R264	1-249-427-11	CARBON	6.8K	5%	1/4W	
R265	1-249-429-11	CARBON	10K	5%	1/4W	
R266	1-249-429-11	CARBON	10K	5%	1/4W	
R267	1-249-429-11	CARBON	10K	5%	1/4W	
R268	1-249-429-11	CARBON	10K	5%	1/4W	
R269	1-249-406-11	CARBON	120	5%	1/4W	
R270	1-249-422-11	CARBON	2.7K	5%	1/4W	
R272	1-249-414-11	CARBON	560	5%	1/4W	
R273	1-249-427-11	CARBON	6.8K	5%	1/4W	
R274	1-249-434-11	CARBON	27K	5%	1/4W	
R275	⚠1-249-387-11	CARBON	3.3	5%	1/4W	F
R277	1-249-429-11	CARBON	10K	5%	1/4W	
R278	1-249-425-11	CARBON	4.7K	5%	1/4W	
R282	1-249-429-11	CARBON	10K	5%	1/4W	
R283	⚠1-249-387-11	CARBON	3.3	5%	1/4W	F
R299	1-249-436-11	CARBON	39K	5%	1/4W	
R305	1-249-417-11	CARBON	1K	5%	1/4W	
R306	1-249-417-11	CARBON	1K	5%	1/4W	
R307	1-249-417-11	CARBON	1K	5%	1/4W	
R308	1-249-417-11	CARBON	1K	5%	1/4W	
R309	1-249-417-11	CARBON	1K	5%	1/4W	
R310	1-249-417-11	CARBON	1K	5%	1/4W	
R401	1-249-429-11	CARBON	10K	5%	1/4W	
R403	1-249-433-11	CARBON	22K	5%	1/4W	
R404	1-249-433-11	CARBON	22K	5%	1/4W	
R405	1-249-433-11	CARBON	22K	5%	1/4W	
R406	1-249-433-11	CARBON	22K	5%	1/4W	
R408	1-249-429-11	CARBON	10K	5%	1/4W	
R411	1-249-429-11	CARBON	10K	5%	1/4W	
R412	1-249-427-11	CARBON	6.8K	5%	1/4W	
R413	1-249-441-11	CARBON	100K	5%	1/4W	
R414	1-247-887-00	CARBON	220K	5%	1/4W	
R415	1-249-405-11	CARBON	100	5%	1/4W	
R416	1-247-885-00	CARBON	180K	5%	1/4W	
R417	1-249-429-11	CARBON	10K	5%	1/4W	
R418	1-247-889-00	CARBON	270K	5%	1/4W	
R419	1-249-437-11	CARBON	47K	5%	1/4W	
R420	1-249-413-11	CARBON	470	5%	1/4W	
R421	1-249-433-11	CARBON	22K	5%	1/4W	
R424	1-249-433-11	CARBON	22K	5%	1/4W	
R425	1-249-437-11	CARBON	47K	5%	1/4W	
R426	1-249-433-11	CARBON	22K	5%	1/4W	
R427	1-249-436-11	CARBON	39K	5%	1/4W	
R428	1-249-429-11	CARBON	10K	5%	1/4W	
R429	1-249-429-11	CARBON	10K	5%	1/4W	
R430	1-249-430-11	CARBON	12K	5%	1/4W	
R431	1-249-431-11	CARBON	15K	5%	1/4W	
R432	1-249-429-11	CARBON	10K	5%	1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

MA-62

Ref. No.	Part No.	Description				Remark
R433	1-249-433-11	CARBON	22K	5%	1/4W	
R434	1-249-433-11	CARBON	22K	5%	1/4W	
R435	1-249-437-11	CARBON	47K	5%	1/4W	
R436	1-249-433-11	CARBON	22K	5%	1/4W	
R437	1-249-437-11	CARBON	47K	5%	1/4W	
R441	1-247-895-00	CARBON	470K	5%	1/4W	
R442	1-249-429-11	CARBON	10K	5%	1/4W	
R443	1-249-441-11	CARBON	100K	5%	1/4W	
R444	1-249-441-11	CARBON	100K	5%	1/4W	
R448	1-249-417-11	CARBON	1K	5%	1/4W	
R449	1-247-885-00	CARBON	180K	5%	1/4W	
R450	1-249-417-11	CARBON	1K	5%	1/4W	
R452	1-249-425-11	CARBON	4.7K	5%	1/4W	
R453	1-249-429-11	CARBON	10K	5%	1/4W	
R454	1-249-415-11	CARBON	680	5%	1/4W	
R463	1-249-423-11	CARBON	3.3K	5%	1/4W	
R465	1-249-423-11	CARBON	3.3K	5%	1/4W	
R466	1-247-885-00	CARBON	180K	5%	1/4W	
R467	1-249-430-11	CARBON	12K	5%	1/4W	
R468	1-249-431-11	CARBON	15K	5%	1/4W	
R470	1-249-415-11	CARBON	680	5%	1/4W	
R488	1-249-417-11	CARBON	1K	5%	1/4W	
R490	1-249-429-11	CARBON	10K	5%	1/4W	
R491	1-249-419-11	CARBON	1.5K	5%	1/4W	
R496	1-249-435-11	CARBON	33K	5%	1/4W	
R497	1-249-429-11	CARBON	10K	5%	1/4W	
R502	⚠1-249-385-11	CARBON	2.2	5%	1/4W	F
R506	1-249-429-11	CARBON	10K	5%	1/4W	
R509	1-249-417-11	CARBON	1K	5%	1/4W	
R510	1-249-417-11	CARBON	1K	5%	1/4W	
R511	1-249-417-11	CARBON	1K	5%	1/4W	
R512	1-249-429-11	CARBON	10K	5%	1/4W	
R513	1-247-705-11	CARBON	270	5%	1/4W	
R514	1-249-417-11	CARBON	1K	5%	1/4W	
R515	1-249-417-11	CARBON	1K	5%	1/4W	
R516	1-249-429-11	CARBON	10K	5%	1/4W	
R517	1-249-437-11	CARBON	47K	5%	1/4W	
R518	1-249-425-11	CARBON	4.7K	5%	1/4W	
R519	1-249-425-11	CARBON	4.7K	5%	1/4W	
R521	1-249-429-11	CARBON	10K	5%	1/4W	
R522	1-249-429-11	CARBON	10K	5%	1/4W	
R523	1-249-429-11	CARBON	10K	5%	1/4W	
R524	1-249-428-11	CARBON	8.2K	5%	1/4W	
R526	1-249-437-11	CARBON	47K	5%	1/4W	
R527	1-249-431-11	CARBON	15K	5%	1/4W	
R528	1-249-419-11	CARBON	1.5K	5%	1/4W	
R529	1-249-418-11	CARBON	1.2K	5%	1/4W	
R530	1-249-417-11	CARBON	1K	5%	1/4W	
R531	1-249-417-11	CARBON	1K	5%	1/4W	
R532	1-249-421-11	CARBON	2.2K	5%	1/4W	
R533	1-247-897-11	CARBON	560K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R534	1-249-428-11	CARBON	8.2K	5%	1/4W	
R535	1-249-410-11	CARBON	270	5%	1/4W	
R536	1-249-421-11	CARBON	2.2K	5%	1/4W	
R537	1-249-437-11	CARBON	47K	5%	1/4W	
R538	1-249-427-11	CARBON	6.8K	5%	1/4W	
R539	1-249-417-11	CARBON	1K	5%	1/4W	
R540	1-249-435-11	CARBON	33K	5%	1/4W	
R541	1-249-429-11	CARBON	10K	5%	1/4W	
R542	1-249-432-11	CARBON	18K	5%	1/4W	
R543	1-249-401-11	CARBON	47	5%	1/4W	
R548	1-249-436-11	CARBON	39K	5%	1/4W	
R552	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-249-417-11	CARBON	1K	5%	1/4W	
R555	1-249-441-11	CARBON	100K	5%	1/4W	
R556	1-249-437-11	CARBON	47K	5%	1/4W	
R557	1-249-437-11	CARBON	47K	5%	1/4W	
R558	1-249-437-11	CARBON	47K	5%	1/4W	
R561	1-249-437-11	CARBON	47K	5%	1/4W	
R562	1-249-437-11	CARBON	47K	5%	1/4W	
R563	1-249-437-11	CARBON	47K	5%	1/4W	
R564	1-249-437-11	CARBON	47K	5%	1/4W	
R565	1-249-437-11	CARBON	47K	5%	1/4W	
R566	1-249-437-11	CARBON	47K	5%	1/4W	
R567	1-249-437-11	CARBON	47K	5%	1/4W	
R572	1-249-405-11	CARBON	100	5%	1/4W	
R573	1-249-427-11	CARBON	6.8K	5%	1/4W	
R574	1-247-903-00	CARBON	1M	5%	1/4W	
R582	1-247-891-00	CARBON	330K	5%	1/4W	
R583	1-247-887-00	CARBON	220K	5%	1/4W	
R589	1-249-421-11	CARBON	2.2K	5%	1/4W	
R590	⚠1-249-377-11	CARBON	0.47	5%	1/4W	F
R591	1-249-422-11	CARBON	2.7K	5%	1/4W	
R595	1-249-429-11	CARBON	10K	5%	1/4W	
R596	1-249-429-11	CARBON	10K	5%	1/4W	
R598	1-249-413-11	CARBON	470	5%	1/4W	
R599	1-249-437-11	CARBON	47K	5%	1/4W	
R751	1-249-414-11	CARBON	560	5%	1/4W	
R752	1-249-423-11	CARBON	3.3K	5%	1/4W	
R801	1-249-428-11	CARBON	8.2K	5%	1/4W	
R802	1-249-428-11	CARBON	8.2K	5%	1/4W	
R803	1-249-425-11	CARBON	4.7K	5%	1/4W	
R804	1-249-425-11	CARBON	4.7K	5%	1/4W	
R805	1-249-428-11	CARBON	8.2K	5%	1/4W	
R806	1-249-428-11	CARBON	8.2K	5%	1/4W	
R807	1-249-429-11	CARBON	10K	5%	1/4W	
R808	1-249-441-11	CARBON	100K	5%	1/4W	
R809	1-249-441-11	CARBON	100K	5%	1/4W	
R810	1-249-435-11	CARBON	33K	5%	1/4W	
R813	1-249-432-11	CARBON	18K	5%	1/4W	
R814	1-249-441-11	CARBON	100K	5%	1/4W	
R815	1-249-437-11	CARBON	47K	5%	1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
R816	1-249-436-11	CARBON 39K 5% 1/4W	
R817	1-249-437-11	CARBON 47K 5% 1/4W	
R818	1-249-435-11	CARBON 33K 5% 1/4W	
R819	1-249-434-11	CARBON 27K 5% 1/4W	
R820	1-249-427-11	CARBON 6.8K 5% 1/4W	
R821	1-249-430-11	CARBON 12K 5% 1/4W	
R822	1-249-417-11	CARBON 1K 5% 1/4W	
R824	1-247-883-00	CARBON 150K 5% 1/4W	
R825	1-249-413-11	CARBON 470 5% 1/4W	
R826	1-249-419-11	CARBON 1.5K 5% 1/4W	
R827	1-247-903-00	CARBON 1M 5% 1/4W	
R828	1-249-419-11	CARBON 1.5K 5% 1/4W	
R829	1-249-422-11	CARBON 2.7K 5% 1/4W	
R830	1-249-429-11	CARBON 10K 5% 1/4W	
R831	1-249-435-11	CARBON 33K 5% 1/4W	
R837	1-249-417-11	CARBON 1K 5% 1/4W	
R838	1-249-417-11	CARBON 1K 5% 1/4W	
R840	1-249-413-11	CARBON 470 5% 1/4W	
R841	1-249-417-11	CARBON 1K 5% 1/4W	
R843	1-249-428-11	CARBON 8.2K 5% 1/4W	
R844	1-249-433-11	CARBON 22K 5% 1/4W	
R845	1-249-433-11	CARBON 22K 5% 1/4W	
R847	1-249-429-11	CARBON 10K 5% 1/4W	
R849	1-249-429-11	CARBON 10K 5% 1/4W	
R851	1-249-437-11	CARBON 47K 5% 1/4W	
R852	1-249-436-11	CARBON 39K 5% 1/4W	
R853	1-249-436-11	CARBON 39K 5% 1/4W	
R854	1-249-437-11	CARBON 47K 5% 1/4W	
R855	1-249-436-11	CARBON 39K 5% 1/4W	
R856	1-249-436-11	CARBON 39K 5% 1/4W	
R857	1-249-424-11	CARBON 3.9K 5% 1/4W	
R858	1-249-417-11	CARBON 1K 5% 1/4W	
R859	1-249-441-11	CARBON 100K 5% 1/4W	
R863	1-249-441-11	CARBON 100K 5% 1/4W	
R901	1-249-417-11	CARBON 1K 5% 1/4W	
R903	1-247-887-00	CARBON 220K 5% 1/4W	

VARIABLE RESISTOR

Ref. No.	Part No.	Description	Remark
RV251	1-238-021-11	RES, ADJ, CARBON 220K	
RV501	1-238-016-11	RES, ADJ, CARBON 10K	

TRANSFORMER

Ref. No.	Part No.	Description	Remark
T251	1-433-352-11	TRANSFORMER, BIAS OSCILLATION	
T252	1-406-349-11	TRANSFORMER, OSCILLATION	

CRYSTAL

Ref. No.	Part No.	Description	Remark
X501	1-578-774-11	VIBRATOR, CRYSTAL 12MHZ	
X503	1-577-358-21	VIBRATOR, CERAMIC 4MHZ	

****

*1-635-225-12 SI-10 BOARD (Ref.No.3000 series)
****

CAPACITOR

Ref. No.	Part No.	Description	Remark
C847	1-162-306-11	CERAMIC 0.01MF 20% 16V	
C848	1-162-306-11	CERAMIC 0.01MF 20% 16V	

IC

Ref. No.	Part No.	Description	Remark
IC810	8-759-602-49	IC M5201P	
IC812	8-759-040-70	IC MC14070BCP	

****

*A-6721-369-A TU-120 BOARD, COMPLETE (SLV-777)
********************** (Ref.No.2000 series)

*A-6721-375-A TU-120 BOARD, COMPLETE (SVL-777UB)
********************** (Ref.No.2000 series)

*A-6721-370-A TU-120 BOARD, COMPLETE (SLV-777NC)
********************** (Ref.No.2000 series)

*A-6721-372-A TU-120 BOARD, COMPLETE (SLV-777VP)
********************** (Ref.No.2000 series)

*A-6721-377-A TU-120 BOARD, COMPLETE (SLV-777AS)
********************** (Ref.No.2000 series)

CAPACITOR

Ref. No.	Part No.	Description	Remark
C001	1-124-477-11	ELECT 47MF 20% 16V	
C002	1-126-163-11	ELECT 4.7MF 20% 50V	
C003	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C004	1-126-233-11	ELECT 22MF 20% 50V	
C005	1-126-103-11	ELECT 470MF 20% 16V	
C006	1-124-927-11	ELECT 4.7MF 20% 50V	
C008	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C009	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C010	1-124-477-11	ELECT 47MF 20% 16V	
C011	1-124-477-11	ELECT 47MF 20% 16V (SVL-777UB)	
C013	1-124-477-11	ELECT 47MF 20% 16V (SVL-777UB)	

When indicating parts by reference number, please include the board name.

TU-120

Ref. No.	Part No.	Description	Remark
C015	1-123-875-11	ELECT 10MF 20% 50V	
C016	1-123-875-11	ELECT 10MF 20% 50V (SVL-777UB)	
C017	1-123-875-11	ELECT 10MF 20% 50V (SVL-777/AS/VP/NC)	
C018	1-123-875-11	ELECT 10MF 20% 50V (SVL-777/AS/VP/NC)	
C019	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C101	1-163-001-11	CERAMIC CHIP 220PF 10% 50V	
C103	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C104	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN001	1-568-074-11	CONNECTOR (RECEPTALE) 10P	
CN002	1-568-075-11	CONNECTOR (RECEPTALE) 12P	
CN003	1-506-487-11	PIN, CONNECTOR 8P (SLV-777UB/NC)	
CN004	1-506-487-11	PIN, CONNECTOR 8P (SLV-777UB/NC)	

DIODE

Ref. No.	Part No.	Description	Remark
D001	⚠8-719-110-78	DIODE RD33ES-B2	
D014	8-719-911-19	DIODE 1SS119	

IF BLOCK

Ref. No.	Part No.	Description	Remark
IF001	⚠1-466-166-11	IF BLOCK (IFX-395C) (SVL-777UB)	
IF001	⚠1-466-167-11	IF BLOCK (IFX-389C) (SLV-777/AS/NC)	
IF001	⚠1-466-145-11	IF BLOCK (IFX-389) (SLV-777VP)	

RESISTOR

Ref. No.	Part No.	Description	Remark
JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR009	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR024	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR025	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR201	1-216-295-00	METAL GLAZE 0 5% 1/10W	

COIL

Ref. No.	Part No.	Description	Remark
L001	1-408-417-00	INDUCTOR 47UH	
L002	1-408-413-00	INDUCTOR 22UH	
L003	1-408-409-00	INDUCTOR 10UH	
L004	1-408-971-11	INDUCTOR 12UH (SLV-777/AS/NC/VP)	
L005	1-408-409-00	INDUCTOR 10UH	
L032	1-410-316-11	INDUCTOR 1UH	
L033	1-410-316-11	INDUCTOR 1UH	
L035	1-410-316-11	INDUCTOR 1UH	

DECODER BLOCK

Ref. No.	Part No.	Description	Remark
MPX001	⚠1-466-144-11	DECODER BLOCK (MPL-389) (SLV-777/AS/VP/NC)	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q001	⚠8-729-901-78	TRANSISTOR 2SC2412K-R	
Q003	8-729-901-78	TRANSISTOR 2SC2412K-R	
Q004	8-729-900-98	TRANSISTOR DTC143TK	
Q005	8-729-901-78	TRANSISTOR 2SC2412K-R	
Q101	8-729-901-78	TRANSISTOR 2SC2412K-R	

RESISTOR

Ref. No.	Part No.	Description	Remark
R002	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R004	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R005	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R006	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R008	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R009	1-216-073-00	METAL GLAZE 10K 5% 1/10W	(SLV-777UB)
R009	1-216-295-00	METAL GLAZE 0 5% 1/10W (SLV-777/AS/NC/VP)	
R011	1-216-073-00	METAL GLAZE 10K 5% 1/10W (SLV-777/AS/NC/VP)	
R012	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W (SLV-777/AS/VP)	
R014	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W (SLV-777/AS/VP)	
R013	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R015	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R016	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R017	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R021	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R023	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R024	1-216-295-00	METAL GLAZE 0 5% 1/10W	(SLV-777UB)
R025	1-216-295-00	METAL GLAZE 0 5% 1/10W	(SLV-777UB)
R026	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R102	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

VARIABLE RESISTOR

Ref. No.	Part No.	Description	Remark
RV001	1-241-080-11	RES, ADJ, CARBON 10K (SVL-777/AS/UB/NC)	

TUNER

Ref. No.	Part No.	Description	Remark
TU001	⚠1-465-465-11	TUNER, ET (SLV-777AS)	
TU001	⚠1-465-262-11	TUNER, ET (BTP-2U601) (SLV-777UB)	
TU001	⚠1-465-260-11	TUNER, ET (BTP2C401) (SLV-777/AS/NC/VP)	

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description				Remark
	*A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-777UB) ******************** (Ref.No.3000 series)				
	*A-6721-371-A	NA-7 BOARD, COMPLETE (SLV-777NC) ******************** (Ref.No.3000 series)				

FILTER

Ref. No.	Part No.	Description
BP001	1-236-238-11	FILTER, BAND PASS

CAPACITOR

Ref. No.	Part No.	Description				Remark
C001	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C002	1-124-477-11	ELECT	47MF	20%	16V	
C003	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C004	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C005	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C006	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C007	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C008	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C009	1-124-477-11	ELECT	47MF	20%	16V	
C010	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C011	1-124-443-00	ELECT	100MF	20%	10V	
C012	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C013	1-126-157-11	ELECT	10MF	20%	16V	
C014	1-124-465-00	ELECT	0.47MF	20%	50V	
C015	1-124-465-00	ELECT	0.47MF	20%	50V	
C016	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C017	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C018	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C019	1-124-465-00	ELECT	0.47MF	20%	50V	
C020	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C021	1-163-123-00	CERAMIC CHIP (SLV-777UB)	180PF	5%	50V	
C021	1-163-131-00	CERAMIC CHIP (SLV-777NC)	390PF	5%	50V	
C022	1-163-123-00	CERAMIC CHIP (SLV-777UB)	180PF	5%	50V	
C022	1-163-131-00	CERAMIC CHIP (SLV-777NC)	390PF	5%	50V	
C023	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C024	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C025	1-130-495-00	MYLAR	0.1MF	5%	50V	
C026	1-130-495-00	MYLAR	0.1MF	5%	50V	
C027	1-163-245-11	CERAMIC CHIP (SLV-777UB)	56PF	5%	50V	
C027	1-163-120-00	CERAMIC CHIP (SLV-777NC)	130PF	5%	50V	
C028	1-163-245-11	CERAMIC CHIP (SLV-777UB)	56PF	5%	50V	
C028	1-163-120-00	CERAMIC CHIP (SLV-777NC)	130PF	5%	50V	
C029	1-130-495-00	MYLAR	0.1MF	5%	50V	
C030	1-130-495-00	MYLAR	0.1MF	5%	50V	
C031	1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C032	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C033	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C034	1-124-465-00	ELECT	0.47MF	20%	50V	
C035	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C036	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C037	1-163-099-00	CERAMIC CHIP (SLV-777UB)	18PF	5%	50V	
C037	1-163-241-11	CERAMIC CHIP (SLV-777NC)	39PF	5%	50V	
C038	1-124-126-00	ELECT	47MF	20%	10V	
C039	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C040	1-124-443-00	ELECT	100MF	20%	10V	
C041	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C045	1-123-875-11	ELECT	10MF	20%	50V	
C046	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C047	1-124-443-00	ELECT	100MF	20%	10V	
C051	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C052	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C053	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C054	1-124-443-00	ELECT	100MF	20%	10V	
C055	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C056	1-124-443-00	ELECT	100MF	20%	10V	
C057	1-130-469-00	MYLAR	680PF	5%	50V	
C058	1-126-301-11	ELECT	1MF	20%	50V	
C059	1-124-126-00	ELECT	47MF	20%	10V	
C060	1-124-443-00	ELECT	100MF	20%	10V	
C061	1-130-471-00	MYLAR	0.001MF	5%	50V	
C062	1-124-442-00	ELECT	330MF	20%	6.3V	
C063	1-130-471-00	MYLAR	0.001MF	5%	50V	
C064	1-124-126-00	ELECT	47MF	20%	10V	
C065	1-130-469-00	MYLAR	680PF	5%	50V	
C066	1-126-301-11	ELECT	1MF	20%	50V	
C067	1-124-477-11	ELECT	47MF	20%	16V	
C068	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C069	1-126-157-11	ELECT	10MF	20%	16V	
C070	1-126-157-11	ELECT	10MF	20%	16V	
C071	1-124-477-11	ELECT	47MF	20%	16V	
C072	1-130-493-00	MYLAR	0.068MF	5%	50V	
C073	1-130-474-00	MYLAR	0.0018MF	5%	50V	
C074	1-124-477-11	ELECT	47MF	20%	16V	
C075	1-130-471-00	MYLAR	0.001MF	5%	50V	
C076	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C077	1-126-151-11	ELECT (SLV-777NC)	4.7MF	20%	16V	
C077	1-124-477-11	ELECT (SLV-777UB)	47MF	20%	16V	
C078	1-126-101-11	ELECT	100MF	20%	16V	
C079	1-124-477-11	ELECT	47MF	20%	16V	
C080	1-164-232-11	CERAMIC CHIP	0.01MF		50V	

When indicating parts by reference number, please include the board name.

NA-7

Ref. No.	Part No.	Description				Remark
C081	1-126-157-11	ELECT	10MF	20%	16V	
C082	1-126-157-11	ELECT	10MF	20%	16V	
C083	1-124-477-11	ELECT	47MF	20%	16V	
C084	1-130-493-00	MYLAR	0.068MF	5%	50V	
C085	1-130-474-00	MYLAR	0.0018MF	5%	50V	
C086	1-124-477-11	ELECT	47MF	20%	16V	
C087	1-130-471-00	MYLAR	0.001MF	5%	50V	
C088	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C089	1-126-151-11	ELECT	4.7MF	20%	16V	

FILTER

CF001	1-409-333-00	TRAP, CERAMIC (6.0MHZ)

CONNECTOR

CN001	1-580-554-11	CONNECTOR, BOARD TO BOARD 16P

VARIABLE CAPACITOR

CV001	1-141-245-00	TRIMMER, CERAMIC 30PF
CV002	1-141-245-00	TRIMMER, CERAMIC 30PF

DIODE

D001	8-719-801-52	DIODE 1SS190-TE85L
D002	8-719-801-52	DIODE 1SS190-TE85L
D003	8-719-400-18	DIODE 1S2837-T1
D004	8-719-400-18	DIODE 1S2837-T1
D005	8-719-400-18	DIODE 1S2837-T1
D006	8-719-400-18	DIODE 1S2837-T1
D007	8-719-400-18	DIODE 1S2837-T1
D008	8-719-104-34	DIODE 1S2835-T1

FERRITE BEAD INDUCTOR

FB001	1-410-397-21	FERRITE BEAD INDUCTOR
FB002	1-410-397-21	FERRITE BEAD INDUCTOR
FB003	1-410-397-21	FERRITE BEAD INDUCTOR
FB004	1-410-397-21	FERRITE BEAD INDUCTOR
FB005	1-410-397-21	FERRITE BEAD INDUCTOR
FB006	1-410-397-21	FERRITE BEAD INDUCTOR

FILTER

FL001	1-236-071-11	ENCAPSULATED COMPONENT
FL002	1-236-071-11	ENCAPSULATED COMPONENT

IC

Ref. No.	Part No.	Description	Remark
IC001	8-759-231-09	IC TA8662N	
IC002	8-759-231-28	IC TC6011N	
IC003	8-752-331-22	IC CXK5864BSP-10L	
IC004	8-759-231-29	IC TD6710AN	
IC005	8-759-900-72	IC NE5532P	
IC006	8-759-900-72	IC NE5532P	

COIL

L002	1-410-072-21	INDUCTOR	820UH
L003	1-410-072-21	INDUCTOR	820UH
L004	1-408-970-21	INDUCTOR	10UH
L005	1-408-970-21	INDUCTOR	10UH
L006	1-408-989-21	INDUCTOR	470UH
L007	1-408-989-21	INDUCTOR	470UH

FILTER

LP001	1-236-356-11	FILTER, LOW PASS
LP002	1-236-356-11	FILTER, LOW PASS

TRANSISTOR

Q001	8-729-100-66	TRANSISTOR 2SC1623-L6
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6
Q003	8-729-104-80	TRANSISTOR 2SC3355
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6

RESISTOR

R001	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R002	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R003	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R004	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R009	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R010	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R011	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R013	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R014	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R015	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R016	1-216-043-00	METAL GLAZE	560	5%	1/10W	(SLV-777UB)
R016	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	(SLV-777NC)
R017	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R018	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R019	1-212-873-11	FUSIBLE	47	5%	1/4W	F
R020	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R021	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R022	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R023	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description				Remark
R024	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R025	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R026	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R027	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R028	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R029	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R030	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R031	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R032	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R033	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R034	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R035	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R036	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R037	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R038	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R039	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R042	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R043	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R044	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R045	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R046	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R047	1-216-041-00	METAL GLAZE	470	5%	1/10W	(SLV-777UB)
R047	1-216-044-00	METAL GLAZE	1K	5%	1/10W	(SLV-777NC)
R048	1-216-047-00	METAL GLAZE	820	5%	1/10W	(SLV-777UB)
R048	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	(SLV-777NC)
R049	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R050	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R051	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R052	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R053	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R054	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R055	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R056	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R057	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R058	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R059	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R060	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R061	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R062	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R063	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R064	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R065	1-216-041-00	METAL GLAZE	470	5%	1/10W	(SLV-777UB)
R065	1-216-049-00	METAL GLAZE	1K	5%	1/10W	(SLV-777NC)
R066	1-216-047-00	METAL GLAZE	820	5%	1/10W	(SLV-777UB)
R066	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	(SLV-777NC)
R067	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R068	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R069	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R070	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R071	1-216-043-00	METAL GLAZE	560	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R072	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R073	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R074	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R075	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R076	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R080	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R081	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R082	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R083	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R084	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R085	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R086	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R087	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R088	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R089	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R090	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R091	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R092	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R093	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R094	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R095	1-216-295-00	METAL GLAZE	0	5%	1/10W	

CRYSTAL

X001	1-577-251-11	VIBRATOR, CRYSTAL 6.552MHZ
X002	1-577-252-11	VIBRATOR, CRYSTAL 5.824MHZ
X003	1-577-253-11	VIBRATOR, CERAMIC 16.9MHZ

****

*A-6727-277-A YC-65 BOARD, COMPLETE (SLV-777/AS/NC)
********************* (Ref.No.4000 series)

*A-6727-290-A YC-65 BOARD, COMPLETE (SLV-777UB)
********************* (Ref.No.4000 series)

*A-6727-281-A YC-65 BOARD, COMPLETE (SLV-777VP)
********************* (Ref.No.4000 series)

3-729-971-01 COVER, VOLUME

CAPACITOR

C701	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C702	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C703	1-126-151-11	ELECT	4.7MF	20%	16V
C704	1-126-233-11	ELECT	22MF	20%	25V
C705	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C706	1-124-927-11	ELECT	4.7MF	20%	50V
C707	1-124-927-11	ELECT	4.7MF	20%	50V
C708	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C709	1-124-443-00	ELECT	100MF	20%	6.3V
C710	1-163-035-00	CERAMIC CHIP	0.047MF		50V

When indicating parts by reference number, please include the board name.

YC-65

Ref. No.	Part No.	Description				Remark
C711	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C712	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C713	1-163-139-00	CERAMIC CHIP	820PF	5%	50V	
C714	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C715	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C718	1-124-927-11	ELECT	4.7MF	20%	50V	
C723	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C724	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C725	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C726	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C727	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C728	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C729	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C730	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C731	1-124-443-00	ELECT	100MF	20%	6.3V	
C732	1-163-115-00	CERAMIC CHIP	82PF	5%	50V	
C733	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C734	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C735	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C736	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C737	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C738	1-124-925-11	ELECT	2.2MF	20%	50V	
C739	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C741	1-124-126-00	ELECT	47MF	20%	10V	
C743	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C744	1-124-126-00	ELECT	47MF	20%	10V	
C746	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C747	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C749	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C750	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C751	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C753	1-124-126-00	ELECT	47MF	20%	10V	
C754	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C755	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C756	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C760	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C761	1-124-963-11	ELECT	33MF	20%	16V	
C763	1-124-927-11	ELECT	4.7MF	20%	50V	
C764	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C770	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C772	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C780	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C782	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C783	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C785	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C790	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C801	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C802	1-124-442-00	ELECT	330MF	20%	6.3V	
C803	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C804	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C805	1-163-033-00	CERAMIC CHIP	0.022MF		50V	

Ref. No.	Part No.	Description				Remark
C806	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C807	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C808	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C809	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C810	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C811	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C812	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C813	1-124-443-00	ELECT	100MF	20%	6.3V	
C814	1-124-443-00	ELECT	100MF	20%	6.3V	
C815	1-164-330-21	CERAMIC CHIP	0.22MF	10%	16V	
C816	1-124-927-11	ELECT	4.7MF	20%	50V	
C817	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C818	1-163-036-00	CERAMIC CHIP	0.068MF		50V	
C819	1-164-492-11	CERAMIC CHIP	0.15MF	10%	16V	
C820	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C823	1-124-927-11	ELECT	4.7MF	20%	50V	
C825	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C826	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	
C827	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C828	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C829	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C830	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C831	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C832	1-124-791-11	ELECT	1MF	20%	50V	
C833	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C834	1-123-382-00	ELECT	3.3MF	20%	50V	
C835	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C836	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C837	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C840	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C841	1-164-232-11	CERAMIC CHIP (SLV-777VP)	0.01MF		50V	
C842	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C858	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C859	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C861	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C862	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C863	1-124-791-11	ELECT	1MF	20%	50V	
C864	1-124-126-00	ELECT	47MF	20%	10V	
C866	1-124-791-11	ELECT	1MF	20%	50V	
C867	1-123-875-11	ELECT	10MF	20%	50V	
C868	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C869	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C870	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C871	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C872	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C873	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C874	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C875	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C876	1-108-796-11	MYLAR	0.0022MF	5%	50V	
C877	1-164-232-11	CERAMIC CHIP	0.01MF		50V	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
C878	1-164-364-11	CERAMIC CHIP 0.0022MF 5% 50V	
C879	1-163-035-00	CERAMIC CHIP 0.047MF 50V	
C880	1-124-791-11	ELECT 1MF 20% 50V	
C881	1-123-875-11	ELECT 10MF 20% 50V	
C882	1-123-382-00	ELECT 3.3MF 20% 50V	
C883	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C884	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C885	1-123-875-11	ELECT 10MF 20% 50V	
C886	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C887	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C888	1-123-875-11	ELECT 10MF 20% 50V	
C889	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C890	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C891	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C892	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C893	1-124-963-11	ELECT 33MF 20% 16V	
C894	1-124-963-11	ELECT 33MF 20% 16V	
C895	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C896	1-124-963-11	ELECT 33MF 20% 16V	
C897	1-124-927-11	ELECT 4.7MF 20% 50V	
C898	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C899	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	

CONNECTOR

CN701	1-506-490-21	PIN, CONNECTOR 11P	
CN702	1-506-490-21	PIN, CONNECTOR 11P	
CN703	*1-564-019-31	PIN, CONNECTOR 9P	

DIODE

D705	8-719-104-34	DIODE 1S2835-T1	
D801	8-719-400-18	DIODE DAN202K-T-146	
D803	8-719-400-18	DIODE DAN202K-T-146	

DELAY LINE

DL801	1-415-602-11	DELAY LINE, GLASS	
FL701	1-236-312-11	FILTER, BAND PASS	
FL801	1-239-915-11	FILTER, BAND PASS	
FL802	1-236-311-11	FILTER, BAND PASS	
FL803	1-527-849-00	FILTER, CERAMIC	

IC

IC701	8-759-420-07	IC AN3231K	
IC702	8-752-321-89	IC CXL5003P	
IC801	8-759-320-78	IC HA118016NT	
IC802	8-759-822-05	IC LA7213	
IC860	8-759-420-53	IC AN3592K	
IC861	8-759-991-54	IC MSM6989RS	
IC862	8-752-006-12	IC CX20061	

Ref. No.	Part No.	Description	Remark
IC863	8-759-822-05	IC LA7213	
IC864	8-759-000-49	IC MC14066BCP	

RESISTOR

JR001	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR003	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR004	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR005	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR006	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR008	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR009	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR010	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR011	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR012	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR013	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR014	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR015	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR017	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR019	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR020	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR021	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR022	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR023	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR024	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR026	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR027	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR028	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR029	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR030	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR031	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR033	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR034	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR035	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR036	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR037	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR039	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR040	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR041	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR042	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR043	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR044	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR045	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR046	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR047	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR048	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR049	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR050	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR051	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR052	1-216-295-00	METAL GLAZE 0 5% 1/10W	

When indicating parts by reference number, please include the board name.

YC-65

Ref. No.	Part No.	Description	Remark
JR053	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR054	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR055	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR056	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR057	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR058	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR059	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR060	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR061	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR062	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR063	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR064	1-216-295-00	METAL GLAZE 0 5% 1/10W	

COIL

Ref. No.	Part No.	Description	Remark
L701	1-408-982-11	INDUCTOR 100UH	
L704	1-408-981-21	INDUCTOR 82UH	
L705	1-408-983-21	INDUCTOR 120UH	
L706	1-408-982-11	INDUCTOR 100UH	
L707	1-408-982-11	INDUCTOR 100UH	
L708	1-408-982-11	INDUCTOR 100UH	
L709	1-408-982-11	INDUCTOR 100UH	
L712	1-408-971-21	INDUCTOR 12UH	
L713	1-408-974-21	INDUCTOR 22UH	
L720	1-408-978-21	INDUCTOR 47UH	
L721	1-408-971-21	INDUCTOR 12UH	
L726	1-408-985-21	INDUCTOR 180UH	
L801	1-408-982-11	INDUCTOR 100UH	
L802	1-408-987-21	INDUCTOR 330UH	
L803	1-408-948-00	INDUCTOR 220UH	
L805	1-408-970-21	INDUCTOR 10UH	
L806	1-408-969-21	INDUCTOR 8.2UH	
L807	1-408-969-21	INDUCTOR 8.2UH	
L809	1-407-499-00	INDUCTOR 3.9MMH	
L861	1-408-976-21	INDUCTOR 33UH	
L862	1-408-970-21	INDUCTOR 10UH	
L880	1-408-982-11	INDUCTOR 100UH	
L881	1-408-982-11	INDUCTOR 100UH	
L882	1-408-972-21	INDUCTOR 15UH	
L883	1-408-975-21	INDUCTOR 27UH	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q702	8-729-216-22	TRANSISTOR 2SA1162	
Q703	8-729-901-47	TRANSISTOR DTA143EK	
Q704	8-729-901-01	TRANSISTOR DTC144EK	
Q705	8-729-100-66	TRANSISTOR 2SC1623	
Q706	8-729-216-22	TRANSISTOR 2SA1162	
Q707	8-729-100-66	TRANSISTOR 2SC1623	
Q709	8-729-100-66	TRANSISTOR 2SC1623	
Q711	8-729-216-22	TRANSISTOR 2SA1162	
Q715	8-729-901-01	TRANSISTOR DTC144EK	
Q716	8-729-901-01	TRANSISTOR DTC144EK	
Q717	8-729-100-66	TRANSISTOR 2SC1623	
Q719	8-729-216-22	TRANSISTOR 2SA1162	
Q721	8-729-100-66	TRANSISTOR 2SC1623	
Q722	8-729-901-01	TRANSISTOR DTC144EK	
Q723	8-729-901-01	TRANSISTOR DTC144EK	
Q801	8-729-100-66	TRANSISTOR 2SC1623	
Q802	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)	
Q803	8-729-100-66	TRANSISTOR 2SC1623	
Q804	8-729-900-53	TRANSISTOR DTC114EK	
Q805	8-729-216-22	TRANSISTOR 2SA1162	
Q806	8-729-901-01	TRANSISTOR DTC144EK	
Q807	8-729-100-66	TRANSISTOR 2SC1623 (SLV-777VP)	
Q808	8-729-100-66	TRANSISTOR 2SC1623	
Q809	8-729-100-66	TRANSISTOR 2SC1623	
Q810	8-729-901-04	TRANSISTOR DTA114EK-T146	
Q811	8-729-216-22	TRANSISTOR 2SA1162	
Q812	8-729-100-66	TRANSISTOR 2SC1623	
Q852	8-729-901-01	TRANSISTOR DTC144EK (SLV-777VP)	
Q860	8-729-809-77	TRANSISTOR 2SC3142-J4	
Q862	8-729-901-01	TRANSISTOR DTC144EK	
Q880	8-729-100-66	TRANSISTOR 2SC1623	
Q881	8-729-100-66	TRANSISTOR 2SC1623	
Q882	8-729-216-22	TRANSISTOR 2SA1162	
Q883	8-729-100-66	TRANSISTOR 2SC1623	

RESISTOR

Ref. No.	Part No.	Description	Remark
R701	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R702	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R703	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R704	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R705	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R706	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R707	1-216-052-00	METAL GLAZE 1.3K 5% 1/10W	
R708	1-216-036-00	METAL GLAZE 300 5% 1/10W	
R709	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R710	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R711	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R712	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R713	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R714	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R717	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R719	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R720	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R722	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R723	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R724	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R725	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R726	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R727	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
R728	1-216-115-00	METAL GLAZE 560K 5% 1/10W	
R729	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R730	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R731	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R733	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R734	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R735	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R736	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R737	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R738	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R739	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R740	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R741	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R742	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R743	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R744	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R745	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R749	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R750	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R751	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R752	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R754	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R755	1-216-129-00	METAL GLAZE 2.2M 5% 1/10W	
R761	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R762	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R763	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R764	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R768	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R769	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R772	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R773	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R774	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R775	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R776	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R777	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R778	1-216-044-00	METAL GLAZE 620 5% 1/10W	
R779	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R780	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R781	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R801	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R802	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R803	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R804	1-216-049-00	METAL GLAZE 1K 5% 1/10W	(SLV-777VP)
R805	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R806	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R807	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R808	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R809	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R810	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R811	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R812	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R813	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R814	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R816	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R817	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R818	1-216-039-00	METAL GLAZE 390 5% 1/10W	
R819	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R820	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R822	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R823	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R824	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R825	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R826	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R827	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R828	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R829	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R830	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R831	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R832	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R833	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R834	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R835	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R836	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R837	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R838	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R839	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R840	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R841	1-216-047-00	METAL GLAZE 820 5% 1/10W	
R843	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R844	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R852	1-216-049-00	METAL GLAZE 1K 5% 1/10W	(SLV-777VP)
R853	1-216-049-00	METAL GLAZE 1K 5% 1/10W (SLV-777/NC/VP)	
R855	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R856	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R857	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R858	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R859	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R860	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R862	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R863	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R864	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R865	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R866	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R867	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R868	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R869	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R870	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R872	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R873	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
R874	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R875	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

When indicating parts by reference number, please include the board name.

YC-65 PI-20

Ref. No.	Part No.	Description				Remark
R876	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R877	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R880	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R881	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R882	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R883	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R884	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R885	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R886	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R887	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R888	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R889	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R890	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R891	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R892	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R893	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R894	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R895	1-249-413-11	CARBON	470	5%	1/4W	
R900	1-216-143-00	METAL GLAZE	2.2	5%	1/10W	(SLV-777VP)

VARIABLE RESISTOR

RV701	1-237-723-11	RES, ADJ, CARBON 4.7K
RV702	1-237-723-11	RES, ADJ, CARBON 4.7K
RV703	1-230-523-11	RES, ADJ, CARBON 10K
RV704	1-238-167-11	RES, ADJ, CARBON 22K
RV705	1-238-167-11	RES, ADJ, CARBON 22K
RV707	1-238-166-11	RES, ADJ, CARBON 1K
RV708	1-230-523-11	RES, ADJ, CARBON 10K
RV710	1-230-494-11	RES, ADJ, CARBON 1K
RV801	1-238-166-11	RES, ADJ, CARBON 1K
RV860	1-230-527-11	RES, ADJ, CARBON 100K
RV861	1-238-166-11	RES, ADJ, CARBON 1K

TRANSFORMER

T802	1-409-467-11	COIL (TRAP 7.8K)

CRYSTAL

X801	1-577-651-11	VIBRATOR, CRYSTAL 4.43619MHZ

****

Ref. No.	Part No.	Description	Remark
	*A-6727-278-A	PI-20 BOARD, COMPLETE	(SLV-777/AS/VP/NC)
	*********************		(Ref.No. 4000 series)
	*A-6727-291-A	PI-20 BOARD, COMPLETE	(SLV-777UB)
	*********************		(Ref.No. 4000 series)

CAPACITOR

C201	1-124-589-11	ELECT	47MF	20%	16V
C202	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C203	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C204	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C205	1-124-234-00	ELECT	22MF	20%	16V
C206	1-126-163-11	ELECT	4.7MF	20%	16V
C207	1-126-163-11	ELECT	4.7MF	20%	16V
C208	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C210	1-126-157-11	ELECT	10MF	20%	16V
C211	1-126-157-11	ELECT	10MF	20%	16V
C212	1-126-157-11	ELECT	10MF	20%	16V
C213	1-126-157-11	ELECT	10MF	20%	16V
C214	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C215	1-126-157-11	ELECT	10MF	20%	16V
C216	1-126-157-11	ELECT	10MF	20%	16V
C217	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C230	1-126-157-11	ELECT	10MF	20%	16V
C231	1-126-157-11	ELECT	10MF	20%	16V
C232	1-126-157-11	ELECT	10MF	20%	16V
C233	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C250	1-124-589-11	ELECT	47MF	20%	16V
C261	1-124-287-00	ELECT	10MF	20%	10V
C262	1-124-287-00	ELECT	10MF	20%	10V

CONNECTOR

CN201	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P
CN202	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P

IC

IC201	8-759-800-81	IC LA7016
IC202	8-759-822-60	IC LA7222
IC206	8-759-501-20	IC LVA522S
IC208	8-759-420-62	IC AN3916

COIL

L201	1-408-421-00	INDUCTOR	100UH
L203	1-408-421-00	INDUCTOR	100UH

When indicating parts by reference number, please include the board name.

TRANSISTOR

Ref. No.	Part No.	Description				Remark
Q224	8-729-216-22	TRANSISTOR 2SA1162				

RESISTOR

Ref. No.	Part No.	Description				Remark
R201	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R202	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R212	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R218	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R251	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R252	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R263	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R902	1-216-025-00	METAL GLAZE	100	5%	1/10W	

VARIABLE RESISTOR

Ref. No.	Part No.	Description	Remark
RV201	1-241-083-11	RES, ADJ, CARBON 47K	

****

Ref. No.	Part No.	Description	Remark
	*A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-777VP) ********************* (Ref.No.5000 series)	
	*A-6727-292-A	CG-10 BOARD, COMPLETE (SLV-777UB) ********************* (Ref.No.5000 series)	
	*A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-777/AS/NC) ********************* (Ref.No.5000 series)	
	*3-738-015-01	COVER, (DIA. 6) CARBON VR	

CAPACITOR

Ref. No.	Part No.	Description				Remark
C685	1-124-126-00	ELECT	47MF	20%	10V	
C686	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C687	1-102-980-00	CERAMIC	270PF	5%	50V	
C688	1-102-980-00	CERAMIC	270PF	5%	50V	
C689	1-164-083-11	CERAMIC	680PF	10%	50V	
C690	1-130-487-00	MYLAR	0.022MF	5%	50V	
C691	1-124-791-11	ELECT	1MF	20%	50V	
C692	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C693	1-162-291-31	CERAMIC	560PF	10%	50V	
C801	1-161-061-11	CERAMIC	0.068MF	10%	25V	
C802	1-124-287-00	ELECT	10MF	20%	10V	
C840	1-162-211-11	CERAMIC (SLV-777VP)	33PF	5%	50V	
C852	1-162-209-31	CERAMIC	27PF	5%	50V	
C853	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C854	1-124-584-00	ELECT	100MF	20%	10V	
C855	1-162-199-31	CERAMIC	10PF	5%	50V	
C856	1-162-201-31	CERAMIC	12PF	5%	50V	
C857	1-162-203-31	CERAMIC	15PF	5%	50V	
C858	1-162-205-31	CERAMIC	18PF	5%	50V	
C863	1-124-791-11	ELECT	1MF	20%	50V	
C864	1-162-217-31	CERAMIC	56PF	5%	50V	
C865	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C866	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C868	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C876	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C890	1-162-306-11	CERAMIC	0.01MF	20%	16V	
C895	1-124-126-00	ELECT	47MF	20%	10V	
C901	1-162-294-11	CERAMIC (SLV-777VP)	1000PF	10%	50V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN585	1-568-073-11	CONNECTOR (RECEPTALE) 8P	
CN586	1-568-073-11	CONNECTOR (RECEPTALE) 8P	

VARIABLE CAPACITOR

Ref. No.	Part No.	Description	Remark
CV851	1-141-245-00	CAP, TRIMMER	

DIODE

Ref. No.	Part No.	Description	Remark
D851	8-719-911-19	DIODE 1SS119	
D852	8-719-911-19	DIODE 1SS119	

IC

Ref. No.	Part No.	Description	Remark
IC685	8-759-996-03	IC LVA519S	
IC851	8-759-634-22	IC M50554-182SP	

JUMPER

Ref. No.	Part No.	Description		Remark
JW026	1-410-397-21	FERRITE BEAD INDUCTOR		
JW027	1-410-324-11	INDUCTOR	4.7UH	

COIL

Ref. No.	Part No.	Description		Remark
L840	1-410-515-11	INDUCTOR	30UH (SLV-777VP)	
L851	⚠1-410-521-11	INDUCTOR	100UH	
L852	1-410-521-11	INDUCTOR	100UH	
L853	1-410-521-11	INDUCTOR	100UH	
L856	1-410-423-11	INDUCTOR	22UH	
L861	1-410-521-11	INDUCTOR	100UH	
L862	1-410-521-11	INDUCTOR	100UH	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q801	8-729-900-61	TRANSISTOR DTA114ES	
Q802	8-729-423-37	TRANSISTOR 2SA3311A-QRS	
Q803	8-729-900-89	TRANSISTOR DTC144ES	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

CG-10 | DG-11

Ref. No.	Part No.	Description	Remark
Q804	8-729-900-65	TRANSISTOR DTA144ES	
Q840	8-729-900-61	TRANSISTOR DTA114ES	(SLV-777VP)
Q853	8-729-423-37	TRANSISTOR 2SA3311A-QRS	
Q855	8-729-423-37	TRANSISTOR 2SA3311A-QRS	(SLV-777VP)
Q856	8-729-423-44	TRANSISTOR 2SA1309A-QRS	
Q857	8-729-423-37	TRANSISTOR 2SA3311A-QRS	
Q901	8-729-900-89	TRANSISTOR DTC144ES	(SLV-777VP)

RESISTOR

R685	1-249-429-11	CARBON	10K	5%	1/4W	
R686	1-249-429-11	CARBON	10K	5%	1/4W	
R687	1-249-422-11	CARBON	2.7K	5%	1/4W	
R688	1-249-434-11	CARBON	27K	5%	1/4W	
R689	1-249-430-11	CARBON	12K	5%	1/4W	
R690	1-247-903-00	CARBON	1M	5%	1/4W	
R691	1-249-414-11	CARBON	560	5%	1/4W	
R801	1-249-425-11	CARBON	4.7K	5%	1/4W	
R802	1-249-437-11	CARBON	47K	5%	1/4W	
R803	1-249-425-11	CARBON	4.7K	5%	1/4W	
R804	1-249-441-11	CARBON	100K	5%	1/4W	
R840	1-249-429-11	CARBON	10K	5%	1/4W	(SLV-777VP)
R841	1-249-429-11	CARBON	10K	5%	1/4W	(SLV-777VP)
R851	1-249-423-11	CARBON	3.3K	5%	1/4W	
R852	1-249-424-11	CARBON	3.9K	5%	1/4W	
R855	1-249-421-11	CARBON	2.2K	5%	1/4W	
R856	1-249-416-11	CARBON	820	5%	1/4W	
R857	1-249-422-11	CARBON	2.7K	5%	1/4W	
R858	1-249-429-11	CARBON	10K	5%	1/4W	
R859	1-249-423-11	CARBON	3.3K	5%	1/4W	
R860	1-249-421-11	CARBON	2.2K	5%	1/4W	
R866	1-249-413-11	CARBON	470	5%	1/4W	
R867	1-249-417-11	CARBON	1K	5%	1/4W	
R868	1-249-424-11	CARBON	3.9K	5%	1/4W	
R870	1-249-413-11	CARBON	470	5%	1/4W	
R873	1-249-416-11	CARBON	820	5%	1/4W	
R877	1-249-435-11	CARBON	33K	5%	1/4W	
R878	1-249-426-11	CARBON	5.6K	5%	1/4W	
R879	1-249-413-11	CARBON	470	5%	1/4W	
R890	1-249-441-11	CARBON	100K	5%	1/4W	
R901	1-249-417-11	CARBON	1K	5%	1/4W	(SLV-777UB)
R902	1-249-406-11	CARBON	120	5%	1/4W	
R903	1-249-413-11	CARBON	470	5%	1/4W	
R904	1-249-429-11	CARBON	10K	5%	1/4W	
R905	1-249-429-11	CARBON	10K	5%	1/4W	

VARIABLE RESISTOR

RV685	1-238-015-11	RES, ADJ, CARBON 4.7K

Ref. No.	Part No.	Description	Remark

CRYSTAL

X851	1-577-289-11	VIBRATOR, CRYSTAL 17.7MHZ

****

*A-6727-280-A DG-11 BOARD, COMPLETE (SLV-777/AS/VP/NC)
********************* (Ref. No. 5000 series)

*A-6727-293-A DG-11 BOARD, COMPLETE (SLV-777UB)
********************* (Ref. No. 5000 series)

CAPACITOR

C101	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C102	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C103	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C104	1-126-301-11	ELECT	1MF	20%	50V
C105	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C106	1-126-177-11	ELECT	100MF	20%	6.3V
C107	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C108	1-126-101-11	ELECT	100MF	20%	16V
C109	1-126-157-11	ELECT	10MF	20%	16V
C113	1-126-163-11	ELECT	4.7MF	20%	35V
C114	1-126-301-11	ELECT	1MF	20%	50V
C115	1-126-099-11	ELECT	2.2MF	20%	35V
C124	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C125	1-126-301-11	ELECT	1MF	20%	50V
C127	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C128	1-126-301-11	ELECT	1MF	20%	50V
C129	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C130	1-124-257-00	ELECT	2.2MF	20%	50V
C131	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C132	1-124-464-11	ELECT	0.22MF	20%	50V
C133	1-126-163-11	ELECT	4.7MF	20%	35V
C134	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C135	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C136	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C137	1-126-157-11	ELECT	10MF	20%	16V
C138	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C139	1-126-177-11	ELECT	100MF	20%	6.3V
C140	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C141	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C142	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C143	1-124-257-00	ELECT	2.2MF	20%	50V
C144	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C145	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C146	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C147	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C148	1-126-301-11	ELECT	1MF	20%	50V
C149	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C150	1-126-177-11	ELECT	100MF	20%	6.3V
C151	1-164-232-11	CERAMIC CHIP	0.01MF		50V

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description				Remark
C152	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C153	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C154	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
C155	1-124-257-00	ELECT	2.2MF	20%	50V	
C156	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C157	1-124-464-11	ELECT	0.22MF	20%	50V	
C158	1-126-163-11	ELECT	4.7MF	20%	35V	
C159	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C161	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C162	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C163	1-126-157-11	ELECT	10MF	20%	16V	
C164	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V	
C165	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C166	1-124-257-00	ELECT	2.2MF	20%	50V	
C167	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C168	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C169	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C170	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V	
C171	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C172	1-126-301-11	ELECT	1MF	20%	50V	
C174	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C175	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C176	1-126-177-11	ELECT	100MF	20%	6.3V	
C177	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C179	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C180	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C181	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C182	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C183	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C184	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C187	1-126-157-11	ELECT	10MF	20%	16V	
C188	1-126-157-11	ELECT	10MF	20%	16V	
C189	1-126-157-11	ELECT	10MF	20%	16V	
C190	1-126-157-11	ELECT	10MF	20%	16V	
C191	1-126-177-11	ELECT	100MF	20%	6.3V	
C192	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C193	1-164-234-11	CERAMIC CHIP	1MF		10V	
C194	1-124-442-00	ELECT	330MF	20%	6.3V	
C196	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C197	1-126-177-11	ELECT	100MF	20%	6.3V	
C198	1-126-177-11	ELECT	100MF	20%	6.3V	
C199	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C200	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C201	1-126-177-11	ELECT	100MF	20%	6.3V	
C202	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C204	1-126-301-11	ELECT	1MF	20%	50V	
C205	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C208	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C250	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C251	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C252	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C253	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C254	1-163-130-00	CERAMIC CHIP	360PF	5%	50V	
C255	1-163-128-00	CERAMIC CHIP	300PF	5%	50V	
C256	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
		CONNECTOR				
CN101	1-569-772-21	CONNECTOR, BOARD TO BOARD 9P				
CN103	1-568-152-21	CONNECTOR, BOARD TO BOARD 13P				
		DIODE				
D101	8-719-400-18	DIODE MA152WK				
D105	8-719-400-18	DIODE MA152WK				
D106	8-719-400-18	DIODE MA152WK				
D109	8-719-400-18	DIODE MA152WK				
		FERRITE BEAD INDUCTOR				
FB101	1-410-397-21	FERRITE BEAD INDUCTOR				
FB102	1-410-397-21	FERRITE BEAD INDUCTOR				
		FILTER				
FL101	1-236-101-11	ENCAPSULATED COMPONENT				
FL102	1-236-101-11	ENCAPSULATED COMPONENT				
FL103	1-236-101-11	ENCAPSULATED COMPONENT				
FL104	1-236-101-11	ENCAPSULATED COMPONENT				
FL109	1-236-071-11	ENCAPSULATED COMPONENT				
FL110	1-236-071-11	ENCAPSULATED COMPONENT				
FL111	1-424-228-11	FILTER, NOISE				
FL112	1-424-228-11	FILTER, NOISE				
FL113	1-424-228-11	FILTER, NOISE				
FL114	1-424-228-11	FILTER, NOISE				
FL115	1-424-228-11	FILTER, NOISE				
FL116	1-424-228-11	FILTER, NOISE				
FL117	1-424-228-11	FILTER, NOISE				
FL118	1-236-071-11	ENCAPSULATED COMPONENT				
FL119	1-236-986-11	FILTER, BAND PASS				
FL120	1-236-986-11	FILTER, BAND PASS				
FL121	1-236-844-11	FILTER, LOW PASS				
FL122	1-236-071-11	ENCAPSULATED COMPONENT				
		IC				
IC101	8-759-322-29	IC HA118088MPER				
IC102	8-759-323-11	IC HA11567MP				
IC103	8-759-322-34	IC HA11535MP				
IC104	8-759-322-68	IC HD49410				
IC105	8-759-322-51	IC HM53461ZP-12				
IC108	8-759-008-74	IC MC14001BF				

When indicating parts by reference number, please include the board name.

DG-11

Ref. No.	Part No.	Description				Remark
		COIL				
L101	1-407-169-99	INDUCTOR	100UH			
L102	1-407-169-99	INDUCTOR	100UH			
L105	1-407-169-99	INDUCTOR	100UH			
L106	1-407-169-99	INDUCTOR	100UH			
L107	1-407-169-99	INDUCTOR	100UH			
L108	1-407-169-99	INDUCTOR	100UH			
L109	1-407-169-99	INDUCTOR	100UH			
L110	1-407-169-99	INDUCTOR	100UH			
		TRANSISTOR				
Q101	8-729-305-25	TRANSISTOR	2SA1052-C			
Q102	8-729-305-25	TRANSISTOR	2SA1052-C			
Q103	8-729-305-25	TRANSISTOR	2SA1052-C			
Q108	8-729-305-25	TRANSISTOR	2SA1052-C			
Q109	8-729-305-25	TRANSISTOR	2SA1052-C			
Q110	8-729-305-25	TRANSISTOR	2SA1052-C			
Q112	8-729-901-00	TRANSISTOR	DTC124EK			
Q113	8-729-305-25	TRANSISTOR	2SA1052-C			
Q114	8-729-271-22	TRANSISTOR	2SC2712-G			
Q116	8-729-305-25	TRANSISTOR	2SA1052-C			
Q117	8-729-271-22	TRANSISTOR	2SC2712-G			
Q118	8-729-305-25	TRANSISTOR	2SA1052-C			
Q120	8-729-901-00	TRANSISTOR	DTC124EK			
Q121	8-729-305-25	TRANSISTOR	2SA1052-C			
Q122	8-729-271-22	TRANSISTOR	2SC2712-G			
Q123	8-729-901-00	TRANSISTOR	DTC124EK			
Q125	8-729-903-82	TRANSISTOR	FMW2			
Q126	8-729-901-01	TRANSISTOR	DTC144EK			
Q127	8-729-271-22	TRANSISTOR	2SC2712-G			
		RESISTOR				
R101	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R103	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R104	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R105	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R106	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R107	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R108	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R109	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R110	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R111	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R112	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R114	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R115	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R116	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R117	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R127	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R139	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R140	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R141	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R144	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R145	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R146	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R147	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R148	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R149	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R150	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R151	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R152	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R153	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R154	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R155	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R156	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R157	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R158	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R159	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R165	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R166	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R167	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R168	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R170	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R171	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R172	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R173	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R174	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R175	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R176	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R177	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R178	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R179	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R180	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R181	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R182	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R183	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R184	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R185	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R186	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R187	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R188	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R189	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R190	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R196	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R197	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R198	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R199	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R200	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R201	1-216-672-11	METAL CHIP	7.5K	0.50%	1/10W	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
R202	1-216-688-11	METAL CHIP 36K 0.50% 1/10W	
R203	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R204	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R205	1-216-672-11	METAL CHIP 7.5K 0.50% 1/10W	
R206	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R207	1-216-688-11	METAL CHIP 36K 0.50% 1/10W	
R208	1-216-631-11	METAL CHIP 150 0.50% 1/10W	
R209	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R215	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R216	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R218	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W	
R219	1-216-125-00	METAL GLAZE 1.5M 5% 1/10W	
R220	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R221	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R222	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R223	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R227	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R230	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R250	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R251	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R252	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R253	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R254	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R255	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R256	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R257	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R258	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R259	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R260	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R261	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R262	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R263	1-216-629-11	METAL CHIP 120 0.50% 1/10W	
R264	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R265	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R266	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R267	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R268	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R269	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

VARIABLE RESISTOR

Ref. No.	Part No.	Description	Remark
RV101	1-241-079-11	RES, ADJ, CARBON 4.7K	
RV102	1-241-077-11	RES, ADJ, CARBON 2.2K	
RV103	1-241-081-11	RES, ADJ, CARBON 22K	
RV104	1-241-081-11	RES, ADJ, CARBON 22K	

TRANSFORMER

Ref. No.	Part No.	Description	Remark
T101	1-411-120-11	COIL, PEAKING 14.3MHZ	
T102	1-411-119-11	COIL, PEAKING 16.1MHZ	

CRYSTAL

Ref. No.	Part No.	Description	Remark
X101	1-579-222-11	OSCILLATOR, CRYSTAL 4.43MHZ	
X102	1-577-611-11	OSCILLATOR, CERAMIC 500KHZ	
X103	1-579-222-11	OSCILLATOR, CRYSTAL 4.43MHZ	
X104	1-577-611-11	OSCILLATOR, CERAMIC 500KHZ	

****

*A-6727-137-A RP-63 BOARD, COMPLETE (SLV-777/AS/NC/VP)
********************* (Ref.No.6000 series)

*A-6727-294-A RP-63 BOARD, COMPLETE (SLV-777UB)
********************* (Ref.No.6000 series)

CAPACITOR

Ref. No.	Part No.	Description	Remark
C101	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C102	1-124-242-00	ELECT 33MF 20% 16V	
C103	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
C104	1-126-301-11	ELECT 1MF 20% 50V	
C106	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C107	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C108	1-124-455-00	ELECT 100MF 20% 16V	
C109	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C110	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C111	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C112	1-126-157-11	ELECT 10MF 20% 16V	
C113	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C114	1-126-301-11	ELECT 1MF 20% 50V	
C115	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C116	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C117	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C118	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C119	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C120	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C121	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C122	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C123	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C801	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C802	1-126-154-11	ELECT 47MF 20% 6.3V	
C803	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C804	1-124-464-11	ELECT 0.22MF 20% 50V	
C805	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
C806	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C807	1-124-464-11	ELECT 0.22MF 20% 50V	
C808	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C809	1-163-038-00	CERAMIC CHIP 0.1MF 25V	
C810	1-124-464-11	ELECT 0.22MF 20% 50V	
C811	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C812	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
C813	1-124-464-11	ELECT 0.22MF 20% 50V	
C814	1-163-038-00	CERAMIC CHIP 0.1MF 25V	

When indicating parts by reference number, please include the board name.

RP-63

Ref. No.	Part No.	Description				Remark
C815	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C816	1-124-463-00	ELECT	0.1MF	20%	50V	
C817	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C818	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C819	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C820	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C821	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C822	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C823	1-163-107-00	CERAMIC CHIP	39PF	5%	50V	
C824	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C825	1-163-115-00	CERAMIC CHIP	82PF	5%	50V	
C826	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C827	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C828	1-126-154-11	ELECT	47MF	20%	6.3V	
C829	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C831	1-126-154-11	ELECT	47MF	20%	6.3V	
C832	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C833	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C834	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C835	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C836	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C838	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C850	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C851	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C852	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C853	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C854	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C855	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C856	1-126-157-11	ELECT	10MF	20%	16V	
C857	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C858	1-163-038-00	CERAMIC CHIP	0.1MF		25V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN101	1-506-487-11	PIN, CONNECTOR 8P	
CN801	1-565-759-11	CONNECTOR, BOARD TO BOARD 13P	
CN802	1-506-490-21	PIN, CONNECTOR 11P	
CN803	1-506-486-11	PIN, CONNECTOR 7P	
CN804	*1-564-031-00	PIN, CONNECTOR 6P	

DIODE

Ref. No.	Part No.	Description	Remark
D102	8-719-400-18	DIODE MA152WK	
D801	8-719-400-18	DIODE MA152WK	
D802	8-719-400-18	DIODE MA152WK	
D803	8-719-400-18	DIODE MA152WK	

IC

Ref. No.	Part No.	Description	Remark
IC101	8-759-320-55	IC HA12115MP	
IC101	8-759-320-55	IC HA12115MP	
IC801	8-759-320-52	IC HA118019NT	

COIL

Ref. No.	Part No.	Description		Remark
L101	1-408-982-11	INDUCTOR	100UH	
L102	1-408-982-11	INDUCTOR	100UH	
L801	1-408-982-11	INDUCTOR	100UH	
L802	1-408-975-21	INDUCTOR	27UH	
L803	1-408-970-21	INDUCTOR	10UH	
L804	1-408-985-21	INDUCTOR	180UH	
L805	1-408-982-11	INDUCTOR	100UH	
L806	1-408-982-11	INDUCTOR	100UH	
L807	1-408-977-21	INDUCTOR	39UH	
L808	1-408-973-21	INDUCTOR	18UH	
L809	1-408-973-21	INDUCTOR	18UH	
L850	1-408-972-21	INDUCTOR	15UH	
L851	1-408-982-11	INDUCTOR	100UH	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q101	8-729-216-22	TRANSISTOR 2SA1162	
Q801	8-729-216-22	TRANSISTOR 2SA1162	
Q802	8-729-901-78	TRANSISTOR 2SC2412K-R	
Q803	8-729-901-78	TRANSISTOR 2SC2412K-R	
Q804	8-729-901-01	TRANSISTOR DTC144EK	
Q805	8-729-901-01	TRANSISTOR DTC144EK	
Q806	8-729-901-01	TRANSISTOR DTC144EK	
Q850	8-729-301-98	TRANSISTOR 2SB1000A-L	
Q851	8-729-901-01	TRANSISTOR DTC144EK	
Q852	8-729-216-22	TRANSISTOR 2SA1162	
Q853	8-729-216-22	TRANSISTOR 2SA1162	
Q854	8-729-901-01	TRANSISTOR DTC144EK	

RESISTOR

Ref. No.	Part No.	Description				Remark
R101	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R102	1-216-003-11	METAL GLAZE	12	5%	1/10W	
R104	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R105	1-216-304-11	METAL GLAZE	3.3	5%	1/10W	
R106	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R107	1-216-304-11	METAL GLAZE	3.3	5%	1/10W	
R108	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R110	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R111	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R120	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R124	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R140	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R141	1-216-011-00	METAL GLAZE	27	5%	1/10W	
R801	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R802	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R803	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R804	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R805	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R806	1-216-113-00	METAL GLAZE	470K	5%	1/10W	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description				Remark
R807	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R808	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R809	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R810	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R811	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R812	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R813	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R814	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R815	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R816	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R817	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R818	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R819	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R820	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R821	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R822	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R823	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R824	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R826	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R827	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R828	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R829	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R830	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R831	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R832	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R833	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R850	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R851	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R852	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R853	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R854	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R855	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R856	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R857	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	

SWITCH

SW801	1-570-857-11	SWITCH, SLIDE

****

*1-635-216-11 JS-20 BOARD (Ref.No.8000 series)
****

CONNECTOR

CN901	*1-563-610-11	CONNECTOR, FLEXIBLE 7P

Ref. No.	Part No.	Description	Remark

SWITCH

S901	1-572-384-11	SWITCH, ROTARY (JOG/SHUTTLE)

****

*1-635-218-13 TK-12 BOARD (SLV-777/AS/NC/VP)
*********** (Ref.No.6000 series)

*1-635-218-21 TK-12 BOARD (SLV-777UB)
*********** (Ref.No.6000 series)

CONNECTOR

CN201	1-563-618-11	CONNECTOR, FLEXIBLE 15P
CN202	1-569-672-11	CONNECTOR, BOARD TO BOARD 16P

****

*1-637-558-11 VI-97 BOARD (Ref.No.6000 series)
****

CAPACITOR

C001	1-124-589-11	ELECT	47MF	20%	16V
C002	1-126-096-11	ELECT	10MF	20%	25V
C004	1-161-379-00	CERAMIC	0.01MF	30%	16V
C005	1-124-472-11	ELECT	470MF	20%	10V

CONNECTOR

CN301	1-563-599-11	CONNECTOR, FLEXIBLE 22P
CN302	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P
CN303	1-569-735-11	CONNECTOR, BOARD TO BOARD 11P

IC

IC001	8-759-800-81	IC LA7016

****

*A-6754-215-A IO-40 BOARD, COMPLETE (SLV-777UB)
********************* (Ref.No.7000 series)

*A-6754-198-A IO-40 BOARD, COMPLETE (SLV-777/AS/NC/VP)
********************* (Ref.No.7000 series)

CAPACITOR

C002	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C004	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C006	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C008	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C010	1-163-133-00	CERAMIC CHIP 470PF	5%	50V

When indicating parts by reference number, please include the board name.

IO-40 DI-43 NM-1

Ref. No.	Part No.	Description	Remark
C012	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C013	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C014	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C015	1-163-833-00	CERAMIC CHIP 0.068MF 25V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN101	1-569-773-11	CONNECTOR, BOARD TO BOARD 17P	
CN102	1-569-774-11	CONNECTOR, BOARD TO BOARD 19P	

JACK

Ref. No.	Part No.	Description	Remark
CNJ002	1-507-792-31	JACK (CONTROL S IN)	
CNJ003	1-507-792-31	JACK (CONTROL S OUT)	
CNJ004	1-561-534-41	SOCKET 21P (EURO AV IN)	
CNJ005	1-561-534-41	SOCKET 21P (EURO AV IN/OUT)	
CNJ006	1-565-727-11	JACK, PIN 3P (LINE OUT)	

DIODE

Ref. No.	Part No.	Description	Remark
D001	8-719-106-08	DIODE RD6.2M-B2	
D002	8-719-106-08	DIODE RD6.2M-B2	
D006	8-719-106-08	DIODE RD6.2M-B2	
D007	8-719-106-08	DIODE RD6.2M-B2	
D008	8-719-106-08	DIODE RD6.2M-B2	
D009	8-719-106-08	DIODE RD6.2M-B2	
D010	8-719-106-08	DIODE RD6.2M-B2	
D013	8-719-106-08	DIODE RD6.2M-B2	
D014	8-719-106-08	DIODE RD6.2M-B2	
D015	8-719-106-08	DIODE RD6.2M-B2	
D016	8-719-106-08	DIODE RD6.2M-B2	
D019	8-719-157-61	DIODE RD15M-T1B	

COIL

Ref. No.	Part No.	Description	Remark
L001	1-410-336-11	INDUCTOR 220UH	
L002	1-410-336-11	INDUCTOR 220UH	
L003	1-410-336-11	INDUCTOR 220UH	
L004	1-410-336-11	INDUCTOR 220UH	
L005	1-410-336-11	INDUCTOR 220UH	
L006	1-410-336-11	INDUCTOR 220UH	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q001	8-729-901-06	TRANSISTOR DTA144EK	
Q002	8-729-901-01	TRANSISTOR DTC144EK	

RESISTOR

Ref. No.	Part No.	Description	Remark
R002	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R004	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R005	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R009	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R010	1-216-031-00	METAL GLAZE 180 5% 1/10W	
R011	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R013	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R015	1-216-022-00	METAL GLAZE 75 5% 1/10W	
R016	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R017	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R018	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R019	1-216-077-00	METAL GLAZE 15K 5% 1/10W	
R020	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R022	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R023	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

****

*1-637-536-11 DI-43 BOARD (Ref.No.8000 series)
****

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN201	1-569-678-21	CONNECTOR, BOARD TO BOARD 9P	
CN203	1-568-104-21	CONNECTOR, BOARD TO BOARD 13P	
CN204	1-568-073-11	CONNECTOR (RECEPTALE) 8P	
CN205	1-568-075-11	CONNECTOR (RECEPTALE) 12P	

****

*1-632-333-11 NM-1 BOARD (SLV-777NC/UB)
********** (Ref.No.8000 series)

CAPACITOR

Ref. No.	Part No.	Description	Remark
C001	1-123-875-11	ELECT 10MF 20% 50V	
C002	1-123-875-11	ELECT 10MF 20% 50V	
C003	1-124-589-11	ELECT 47MF 20% 16V	
C004	1-124-589-11	ELECT 47MF 20% 16V	
C009	1-123-875-11	ELECT 10MF 20% 50V	
C010	1-123-875-11	ELECT 10MF 20% 50V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN001	1-506-487-11	PIN, CONNECTOR 8P	
CN002	1-506-487-11	PIN, CONNECTOR 8P	
CN003	1-580-555-11	CONNECTOR, BOARD TO BOARD 16P	

DIODE

Ref. No.	Part No.	Description	Remark
D002	8-719-911-19	DIODE 1SS119	
D003	8-719-911-19	DIODE 1SS119	
D010	8-719-911-19	DIODE 1SS119	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
		IC	
IC001	8-759-800-81	IC LA7016	
IC002	8-759-800-81	IC LA7016	
		TRANSISTOR	
Q003	8-729-900-80	TRANSISTOR DTC114ES	
Q004	8-729-900-80	TRANSISTOR DTC114ES	
Q005	8-729-900-80	TRANSISTOR DTC114ES	
Q006	8-729-900-80	TRANSISTOR DTC114ES	
Q007	8-729-900-80	TRANSISTOR DTC114ES	
Q008	8-729-303-37	TRANSISTOR 2SD655E	
Q009	8-729-303-37	TRANSISTOR 2SD655E	
		RESISTOR	
R002	1-249-429-11	METAL 10K 5% 1/4W	
R003	1-249-429-11	METAL 10K 5% 1/4W	
R004	1-249-429-11	METAL 10K 5% 1/4W	
R005	1-249-428-11	METAL 8.2K 5% 1/4W	
R007	1-249-428-11	METAL 8.2K 5% 1/4W	
R009	1-249-429-11	METAL 10K 5% 1/4W	
R010	1-249-429-11	METAL 10K 5% 1/4W	
R011	1-249-417-11	METAL 1K 5% 1/4W	
R012	1-249-417-11	METAL 1K 5% 1/4W	

****

*A-6754-218-A MD-49 BOARD, COMPLETE (Ref.No.9000 series)
****

Ref. No.	Part No.	Description	Remark
		CAPACITOR	
C001	1-161-494-00	CERAMIC 0.022MF 25V	
C002	1-161-494-00	CERAMIC 0.022MF 25V	
C003	1-126-157-11	ELECT 10MF 20% 16V	
C004	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C005	1-126-157-11	ELECT 10MF 20% 16V	
C006	1-124-589-11	ELECT 47MF 20% 16V	
C008	1-164-159-11	CERAMIC 0.1MF 50V	
C009	1-164-159-11	CERAMIC 0.1MF 50V	
C011	1-162-849-11	CERAMIC 0.068MF 10% 50V	
C012	1-162-849-11	CERAMIC 0.068MF 10% 50V	
C013	1-162-849-11	CERAMIC 0.068MF 10% 50V	
C014	1-124-160-11	ELECT 1MF 20% 50V	
C016	1-124-589-11	ELECT 47MF 20% 16V	
C017	1-126-162-11	ELECT 3.3MF 20% 25V	
C018	1-124-589-11	ELECT 47MF 20% 16V	
C019	1-124-589-11	ELECT 47MF 20% 16V	
C020	1-164-159-11	CERAMIC 0.1MF 50V	
C021	1-162-292-31	CERAMIC 680PF 10% 50V	
C022	1-164-159-11	CERAMIC 0.1MF 50V	
C025	1-102-074-00	CERAMIC MELF 0.001MF 10% 50V	
C026	1-102-074-00	CERAMIC MELF 0.001MF 10% 50V	
		CONNECTOR	
CN001	1-506-494-11	PIN, CONNECTOR 15P	
CN002	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P	
CN003	1-569-334-11	CONNECTOR, BOARD TO BOARD 5P	
CN004	1-563-622-21	CONNECTOR, FLEXIBLE 19P	
CN005	*1-506-482-11	PIN, CONNECTOR 3P	
CN006	1-569-333-11	CONNECTOR, BOARD TO BOARD 3P	
CN007	1-563-622-21	CONNECTOR, FLEXIBLE 19P	
CN008	*1-506-482-11	PIN, CONNECTOR 3P	
		DIODE	
D001	8-719-974-65	DIODE GL451V (LED)	
D004	8-719-109-93	DIODE RD6.2ESB2	
D005	8-719-109-93	DIODE RD6.2ESB2	
D006	8-719-109-93	DIODE RD6.2ESB2	
D007	8-719-109-93	DIODE RD6.2ESB2	
		IC	
IC002	8-759-938-12	IC BA10324	
IC004⚠	8-759-234-03	IC TA8424F	
		PHOTO SENSOR	
PH001	8-759-144-33	PHOTO SENSOR PS6002	
PH002	8-759-144-33	PHOTO SENSOR PS6002	
		IC LINK	
PS001	1-535-685-91	IC LINK (ICP-N20-T104)	
		TRANSISTOR	
Q001	8-729-921-53	PHOTO TRANSISTOR PT483F1	
Q002	8-729-921-53	PHOTO TRANSISTOR PT483F1	
		RESISTOR	
R001	1-249-423-11	CARBON 3.3K 5% 1/4W	
R002	1-249-423-11	CARBON 3.3K 5% 1/4W	
R003	1-249-426-11	CARBON 5.6K 5% 1/4W	
R004	1-249-426-11	CARBON 5.6K 5% 1/4W	
R005	1-249-415-11	CARBON 680 5% 1/4W	
R006	1-249-441-11	CARBON 100K 5% 1/4W	
R007	1-249-441-11	CARBON 100K 5% 1/4W	
R008	1-249-425-11	CARBON 4.7K 5% 1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

MD-49 **MF-101**

Ref. No.	Part No.	Description	Remark
R009	1-249-409-11	CARBON 220 5% 1/4W	
R010	1-249-425-11	CARBON 4.7K 5% 1/4W	
R011	1-249-437-11	CARBON 47K 5% 1/4W	
R012	1-249-421-11	CARBON 2.2K 5% 1/4W	
R013	1-249-429-11	CARBON 10K 5% 1/4W	
R014	1-249-426-11	CARBON 5.6K 5% 1/4W	
R015	1-249-437-11	CARBON 47K 5% 1/4W	
R016	1-249-421-11	CARBON 2.2K 5% 1/4W	
R019	⚠1-249-377-11	CARBON 0.47 5% 1/4W	F
R020	1-249-406-11	CARBON 120 5% 1/4W	
R021	1-249-383-11	CARBON 1.5 5% 1/4W	
R022	1-249-408-11	CARBON 180 5% 1/4W	
R023	1-249-414-11	CARBON 560 5% 1/4W	
R024	1-249-417-11	CARBON 1K 5% 1/4W	
R025	1-247-891-00	CARBON 330K 5% 1/4W	
R027	1-249-383-11	CARBON 1.5 5% 1/4W	
R028	1-249-383-11	CARBON 1.5 5% 1/4W	

SWITCH

Ref. No.	Part No.	Description	Remark
S001	1-570-953-11	SWITCH, PUSH (1 KEY)	
S002	1-570-953-11	SWITCH, PUSH (1 KEY)	

****

Ref. No.	Part No.	Description	Remark
	*A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-777UB) ********************** (Ref.No.9000 series)	
	*A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-777VP) ********************** (Ref.No.9000 series)	
	*A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-777/AS/NC) ********************** (Ref.No.9000 series)	
	*3-744-056-01	COVER, LED	
	*3-749-306-01	PLATE, GROUND, MF	

CAPACITOR

Ref. No.	Part No.	Description	Remark
C102	1-162-282-31	CERAMIC 100PF 10% 50V	
C104	1-162-282-31	CERAMIC 100PF 10% 50V	
C106	1-162-282-31	CERAMIC 100PF 10% 50V	
C108	1-162-282-31	CERAMIC 100PF 10% 50V	
C109	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C111	1-161-379-00	CERAMIC 0.01MF 30% 16V	
C112	1-162-286-31	CERAMIC 220PF 10% 50V	
C113	1-126-157-11	ELECT 10MF 20% 10V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN101	1-569-669-11	CONNECTOR, BOARD TO BOARD 16P	
CN102	1-569-815-11	CONNECTOR, BOARD TO BOARD 21P	
CN103	1-506-483-21	PIN, CONNECTOR 4P	
CN104	1-506-490-21	PIN, CONNECTOR 11P	
CN105	1-506-485-11	PIN, CONNECTOR 6P	

JACK

Ref. No.	Part No.	Description	Remark
CNJ101	1-562-808-11	JACK (MIC)	
CNJ102	1-565-669-21	JACK, SMALL TYPE (HEADPHONES)	
CNJ104	1-565-735-21	JACK, PIN 3P (LINE IN 2)	
CNJ105	1-568-611-11	SOCKET, DIN (SMALL TYPE) 5P (CONTROL L)	

COMPOSITION CIRCUIT BLOCK

Ref. No.	Part No.	Description	Remark
CP101	1-233-220-11	COMPOSITION CIRCUIT BLOCK	
CP102	1-232-656-11	COMPOSITION CIRCUIT BLOCK	

DIODE

Ref. No.	Part No.	Description	Remark
D101	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/AS/VP/NC)	
D101		DIODE BRPG5041XK (POWER) (SLV-777UB)	
D102	8-719-955-04	DIODE PY5504S-1 (POWER) (SLV-777/AS/VP/NC)	
D102		DIODE BRPG5041XK (POWER) (SLV-777UB)	
D103	8-719-110-36	DIODE RD13ES-B2	
D104	8-719-109-93	DIODE RD6.2ES-B2	
D105	8-719-911-19	DIODE 1SS119	
D106	8-719-911-19	DIODE 1SS119	
D107	8-719-109-93	DIODE RD6.2ES-B2	
D110	8-719-946-30	DIODE SLR-34DC3 (SYNCHRO EDIT)	

COIL

Ref. No.	Part No.	Description	Remark
L101	1-410-336-11	INDUCTOR 220UH	
L102	1-410-336-11	INDUCTOR 220UH	
L103	1-410-336-11	INDUCTOR 220UH	
L104	1-410-336-11	INDUCTOR 220UH	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE (SLV-777UB)	
Q102	8-729-900-89	TRANSISTOR DTC144ES (SLV-777UB)	

RESISTOR

Ref. No.	Part No.	Description	Remark
R101	1-249-407-11	CARBON 150 5% 1/4W	
R102	1-249-407-11	CARBON 150 5% 1/4W	
R104	1-249-433-11	CARBON 22K 5% 1/4W	
R106	1-249-421-11	CARBON 2.2K 5% 1/4W	
R108	1-249-423-11	CARBON 3.3K 5% 1/4W	
R109	1-249-425-11	CARBON 4.7K 5% 1/4W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-249-433-11	CARBON 22K 5% 1/4W	
R112	1-249-407-11	CARBON 150 5% 1/4W	
R113	1-249-407-11	CARBON 150 5% 1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
R114	1-249-427-11	CARBON 6.8K 5% 1/4W	
R115	1-249-417-11	CARBON 1K 5% 1/4W	
R116	1-249-438-11	CARBON 56K 5% 1/4W	
R117	1-249-423-11	CARBON 3.3K 5% 1/4W	
R118	1-249-433-11	CARBON 22K 5% 1/4W	
R121	1-247-804-11	CARBON 75 5% 1/4W	
R124	1-249-426-11	CARBON 5.6K 5% 1/4W	
R125	1-249-428-11	CARBON 8.2K 5% 1/4W	
R126	1-249-426-11	CARBON 5.6K 5% 1/4W	
R127	1-249-428-11	CARBON 8.2K 5% 1/4W	
R128	1-249-405-11	CARBON 100 5% 1/4W	
R129	1-249-417-11	CARBON 1K 5% 1/4W	

VARIABLE RESISTOR

RV101	1-238-420-11	RES, VAR, CARBON 10K (PHONE LEVEL)	
RV102	1-241-061-11	RES, VAR, CARBON 2K (SHARPNESS)	
RV103	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL L)	
RV104	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL R)	

SWITCH

S101	1-571-977-11	SWITCH, TACTIL (POWER)	
S102	1-571-977-11	SWITCH, TACTIL (EJECT)	
S103	1-571-977-11	SWITCH, TACTIL (SYNCHRO EDIT)	
S104	1-571-977-11	SWITCH, TACTIL (EDIT MONITOR)	
S105	1-570-854-11	SWITCH, SLIDE (COMMANDE MODE)	
S106	1-571-977-11	SWITCH, TACTIL (VPS ON/OFF) (SLV-777VP)	

****

	*A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-777/AS) ********************* (Ref.No.9000 series)	
	*A-6756-036-A	MF-94 BOARD, COMPLETE (SLV-777NC) ********************* (Ref.No.9000 series)	
	*A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-777VP) ********************* (Ref.No.9000 series)	
	*A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-777UB) ********************* (Ref.No.9000 series)	
	*3-682-419-51	HOLDER, P.C.B	
	*3-743-637-01	HOLDER, FL	

BUZZER

BZ201	1-529-080-11	BUZZER, PIEZOELECTRIC	

CAPACITOR

C202	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	

Ref. No.	Part No.	Description	Remark
C203	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C204	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C205	1-162-847-11	CERAMIC 0.047MF 10% 16V	
C206	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C207	1-125-486-11	ELECT 0.22MF 5.5V	
C208	1-126-157-11	ELECT 10MF 20% 16V	
C209	1-126-154-11	ELECT 47MF 20% 6.3V	
C210	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C211	1-163-809-11	CERAMIC CHIP 0.047MF 10% 25V	
C212	1-126-096-11	ELECT 10MF 20% 35V	
C214	1-124-589-11	ELECT 47MF 20% 16V	
C215	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C218	1-126-163-11	ELECT 4.7MF 20% 16V	
C219	1-126-163-11	ELECT 4.7MF 20% 16V	
C220	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C221	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C222	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C223	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C224	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C225	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C226	1-163-037-11	CERAMIC CHIP 0.022MF 10% 25V	
C230	1-126-160-11	ELECT 1MF 20% 50V	
C231	1-126-160-11	ELECT 1MF 20% 50V	
C232	1-164-232-11	CERAMIC CHIP 0.01MF 50V	
C233	1-124-472-11	ELECT 470MF 20% 6.3V	
C234	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	

CONNECTOR

CN201	1-569-814-11	CONNECTOR, BOARD TO BOARD 21P	
CN202	1-568-080-11	CONNECTOR (RECEPTALE) 22P	
CN203	1-568-079-11	CONNECTOR (RECEPTALE) 20P	
CN204	*1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P	
CN205	1-569-667-11	CONNECTOR, BOARD TO BOARD 8P	
CN207	1-506-468-11	PIN, CONNECTOR 3P	
CN208	*1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P	

VARIABLE CAPACITOR

CV201	1-141-291-11	CAP, TRIMMER 20PF	

DIODE

D201	8-719-911-19	DIODE 1SS119	
D202	8-719-911-19	DIODE 1SS119	
D203	8-719-911-19	DIODE 1SS119	
D204	⚠8-719-911-19	DIODE 1SS119	
D206	8-719-104-34	DIODE 1S2836	
D208	⚠8-719-105-82	DIODE RD5.1M-B2	
D209	8-719-106-08	DIODE RD6.2M-B2	
D211	8-719-400-18	DIODE MA152WK	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

MF-94

Ref. No.	Part No.	Description	Remark
D212	8-719-400-18	DIODE MA152WK	
D216	8-719-400-18	DIODE MA152WK	
D217	8-719-400-18	DIODE MA152WK	
D218	8-719-104-34	DIODE 1S2836	
D219	8-719-106-08	DIODE RD6.2M-B2	

IC

Ref. No.	Part No.	Description	Remark
IC201	8-759-504-10	IC MB89794B-PAL	
IC202	8-759-748-54	IC CAT35C202P	
IC203	8-759-502-50	IC S-8053HNB	
IC204	8-759-947-53	IC S-8054ALR	
IC205	8-759-961-38	IC BA6138	

RESISTOR

Ref. No.	Part No.	Description	Remark
JR001	1-216-295-00	METAL GLAZE 0 5% 1/10W	

COIL

Ref. No.	Part No.	Description	Remark
L201	1-408-422-00	INDUCTOR 120UH	
L203	1-410-336-11	INDUCTOR 220UH	
L204	1-410-517-11	INDUCTOR 47UH	
L205	1-410-501-11	INDUCTOR 2.2UH	
L206	1-410-501-11	INDUCTOR 2.2UH	
L207	1-410-501-11	INDUCTOR 2.2UH	
L208	1-410-501-11	INDUCTOR 2.2UH	(SLV-777VP)
L209	1-410-361-21	INDUCTOR 12UH	
L210	1-410-501-11	INDUCTOR 2.2UH	
L211	1-410-501-11	INDUCTOR 2.2UH	
L212	1-410-501-11	INDUCTOR 2.2UH	
L213	1-410-501-11	INDUCTOR 2.2UH	
L214	1-410-501-11	INDUCTOR 2.2UH	
L215	1-410-501-11	INDUCTOR 2.2UH	
L216	1-410-501-11	INDUCTOR 2.2UH	
L217	1-410-316-11	INDUCTOR 1UH	
L218	1-410-316-11	INDUCTOR 1UH	

INDICATOR

Ref. No.	Part No.	Description	Remark
ND201	1-519-633-11	INDICATION TUBE, FLUORESCENT	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q201	8-729-271-23	TRANSISTOR 2SC2712	
Q202	8-729-271-23	TRANSISTOR 2SC2712	
Q205	8-729-901-01	TRANSISTOR DTC144EK	
Q206	8-729-901-01	TRANSISTOR DTC144EK	

RESISTOR

Ref. No.	Part No.	Description	Remark
R201	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R202	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R203	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R204	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R205	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R206	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	(SLV-777NC)
R206	1-216-068-00	METAL GLAZE 6.2K 5% 1/10W	(SLV-777UB)
R206	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W (SLV-777/AS)	
R206	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	(SLV-777VP)
R207	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W (SLV-777UB/VP)	
R207	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W	(SLV-777NC)
R207	1-216-068-00	METAL GLAZE 6.2K 5% 1/10W (SLV-777/AS)	
R208	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R210	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R211	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R212	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R213	1-216-001-00	METAL GLAZE 10 5% 1/10W	
R214	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R215	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R216	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R217	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R222	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R223	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R224	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R225	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R226	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R227	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R228	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R229	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R230	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R231	1-216-109-00	METAL GLAZE 330K 5% 1/10W	
R242	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R243	1-216-073-00	METAL GLAZE 10K 5% 1/10W (SLV-777/NC/UB)	
R244	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R245	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R246	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R247	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R248	1-249-413-11	CARBON 470 5% 1/4W	
R249	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R250	1-216-186-00	METAL GLAZE 330 5% 1/8W	
R251	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R252	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R253	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R254	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R255	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R256	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description				Remark
R301	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R302	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R303	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R304	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R305	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R306	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R307	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R308	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R310	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R312	1-216-295-00	METAL GLAZE	0	5%	1/10W	

VARIABLE RESISTOR

RV201	1-238-016-11	RES, ADJ, CARBON 10K
RV202	1-238-016-11	RES, ADJ, CARBON 10K

CRYSTAL

X201	1-567-098-00	VIBRATOR, CRYSTAL
X202	1-579-223-11	OSCILLATOR, CERAMIC

****

*1-635-214-31 RM-42 BOARD (Ref.No.9000 series)
****

CONNECTOR

CN501	*1-565-042-11	HOUSING, CONNECTOR(PC BOARD)5P
CN502	*1-565-042-11	HOUSING, CONNECTOR(PC BOARD)5P

DIODE

D502	8-719-955-04	DIODE SLR-54MC3 (AUTO TRAKING)
D503	8-719-302-07	DIODE SLR-54DC3 (EDIT MONITOR)
D504	8-719-921-01	DIODE SLR-54VC3 (AUDIO INSERT)
D505	8-719-921-01	DIODE SLR-54VC3 (VIDEO INSERT)
D506	8-719-955-04	DIODE SLR-54MC3 (◄◄◄)

****

*1-632-296-12 SD-4 BOARD (SLV-777VP)
********** (Ref.No.9000 series)

CAPACITOR

C850	1-130-474-11	MYLAR	0.0018MF	5%	50V
C851	1-163-125-11	CERAMIC CHIP	220PF	5%	50V
C852	1-164-505-11	CERAMIC CHIP	2.2MF		25V
C854	1-124-906-11	ELECT	4.7MF	20%	50V
C855	1-124-892-11	ELECT	47MF	20%	10V
C857	1-163-031-11	CERAMIC CHIP	0.01MF		50V

Ref. No.	Part No.	Description	Remark

CONNECTOR

CN851	1-564-782-11	PIN, CONNECTOR 4P
CN852	1-564-782-11	PIN, CONNECTOR 4P

FILTER

FL850	1-527-943-11	FILTER, CERAMIC 4.16MHZ

IC

IC850	8-759-904-95	IC BA7077

COIL

L850	1-410-450-11	INDUCTOR 3.9MMH

TRANSISTOR

Q850	8-729-901-81	TRANSISTOR 2SC2412K
Q851	8-729-901-81	TRANSISTOR 2SC2412K

RESISTOR

R846	1-216-065-11	METAL GLAZE	4.7K	5%	1/10W
R847	1-216-057-11	METAL GLAZE	2.2K	5%	1/10W
R848	1-216-057-11	METAL GLAZE	2.2K	5%	1/10W
R849	1-216-073-11	METAL GLAZE	10K	5%	1/10W
R850	1-216-057-11	METAL GLAZE	2.2K	5%	1/10W
R851	1-216-083-11	METAL GLAZE	27K	5%	1/10W
R854	1-216-109-11	METAL GLAZE	330K	5%	1/10W

****

*1-637-446-11 VP-24 BOARD (SLV-777VP)
*********** (Ref.No.10000 series)

CAPACITOR

C001	1-164-044-11	CERAMIC CHIP	0.1MF	20%	50V
C002	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C003	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V
C004	1-124-589-11	ELECT	47MF	20%	16V
C005	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C003	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V
C007	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C008	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C201	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V
C202	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V
C203	1-124-589-11	ELECT	47MF	20%	16V
C204	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V

When indicating parts by reference number, please include the board name.

VP-24

OSCILLATOR

Ref. No.	Part No.	Description	Remark
CF001	1-567-160-21	OSCILLATOR, CERAMIC 4.19MHZ	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN102	1-563-528-11	CONNECTOR, BOARD TO BOARD 6P	
CN103	1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P	
CN104	1-506-483-21	PIN, CONNECTOR 4P	

DIODE

Ref. No.	Part No.	Description	Remark
D201	8-719-400-18	DIODE 1S2837	

RESISTOR

Ref. No.	Part No.	Description	Remark
JR001	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR002	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR003	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR004	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR005	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR006	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR008	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR009	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR010	1-216-296-00	METAL GLAZE 0 5% 1/8W	

RESISTOR

Ref. No.	Part No.	Description	Remark
R001	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R002	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R003	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R004	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R005	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R006	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R007	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R008	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R009	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R010	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R011	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R012	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

****

MISCELLANEOUS
****

Ref. No.	Part No.	Description	Remark
	A-6761-129-A	HEAD BLOCK ASSY, ACE (AUDIO, AUDIO ERASE, CTL HEAD)	
	⚠1-413-601-11	SWITCHING BLOCK (POWER BLOCK) (SLV-777/AS/NC)	
	⚠1-413-608-11	SWITCHING BLOCK (POWER BLOCK) (SLV-777VP)	
	⚠1-413-609-11	SWITCHING BLOCK (POWER BLOCK) (SLV-777UB)	
	⚠1-466-328-31	MODULATOR, RF (RFU-2027) (RF MODULATOR) (SLV-777/AS/VP/NC)	
	⚠1-466-347-31	MODULATOR, RF (RFU-2028) (RF MODULATOR) (SLV-777UB)	
	1-466-346-31	SWITCH BLOCK, CONTROL (SW BLOCK)	
	1-506-482-11	PIN, CONNECTOR 3P (FOR LOADING MOTOR)	
	1-506-482-11	PIN, CONNECTOR 3P (FOR CAM MOTOR)	
	1-506-483-21	PIN, CONNECTOR 4P (FOR AUDIO, AUDIO ERASE HEAD)	
	1-543-647-11	HEAD, FE (FULL ERASE HEAD)	
	1-558-924-41	CABLE, PIN (RF MODULATOR TO TUNER)	
	1-571-920-11	SWITCH, ROTARY	
	1-575-745-11	WIRE, FLAT TYPE (19 CORE) (MA BOARD TO MD BOARD)	
	1-575-746-11	WIRE, FLAT TYPE (22 CORE) (MA BOARD TO VI BOARD)	
	*1-633-460-11	PC BOARD, CA-41 (ON CAM MOTOR)	
M901	1-550-535-11	DRUM ASSY (DZH-17A) (DRUM MOTOR)	
M902	8-835-394-01	MOTOR, DC U-26F (CAPSTAN MOTOR)	
M903	X-3733-302-1	MOTOR ASSY (CAM MOTOR)	
M904	X-3727-784-1	MOTOR ASSY (LOADING MOTOR)	

****

ACCESSORIES AND PACKING MATERIALS
****

Ref. No.	Part No.	Description	Remark
	1-465-472-11	REMOTE COMMANDER (RMT-V5B)	
	1-551-086-31	CORD, CONNECTION	
	1-551-513-00	CABLE, COAXAL ASSY	
	1-575-334-11	CORD, CONNECTION	
	3-695-308-01	DRIVER, VOLUME	
	*3-738-213-01	CASE, ACCESSORY	
	*3-743-682-01	CUSHION (UPPER)	
	*3-743-683-01	CUSHION (LOWER)	
	*3-744-029-21	INDIVIDUAL CARTON (SLV-777UB)	
	*3-744-029-31	INDIVIDUAL CARTON (SLV-777/AS)	
	*3-744-029-41	INDIVIDUAL CARTON (SLV-777VP)	
	*3-744-029-51	INDIVIDUAL CARTON (SLV-777NC)	
	3-752-461-11	MANUAL, INSTRUCTION (SLV-777AS/UB) (ENGLISH)	
	3-752-461-41	MANUAL, INSTRUCTION (SLV-777) (ITALIAN, PORTUGUESE)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark
	3-752-461-51	MANUAL, INSTRUCTION (SLV-777VP) (FRENCH, GERMAN, ITALIAN, DUTCH)	
	3-752-461-61	MANUAL, INSTRUCTION (SLV-777NC) (SPANISH, SWEDISH, DANISH, FINNISH)	
	3-752-463-11	MANUAL, INSTANT INFORMATION (SLV-777AS/UB) (ENGLISH)	
	3-752-463-41	MANUAL, INSTANT INFORMATION (SLV-777) (ITALIAN, PORTUGUESE)	
	3-752-463-51	MANUAL, INSTANT INFORMATION (SLV-777VP) (FRENCH, GERMAN, ITALIAN, DUTCH)	
	3-752-463-61	MANUAL, INSTANT INFORMATION (SLV-777NC) (SPANISH, SWEDISH, DANISH, FINNISH)	
	*3-752-835-11	INSTRUCTION (SLV-777AS) (ENGLISH)	

****

HARDWARE LIST

****

SET-SCREW

Ref. No.	Part No.	Description	Remark
	7-621-732-08	SET-SCR, HEX. 2X3 FLAT POINT	

SCREW

Ref. No.	Part No.	Description	Remark
	7-621-849-10	SCREW, WOOD +R 3.1X13	
	7-627-552-08	SCREW, PRECISION +P 1.7X2.5	
	7-628-254-00	SCREW +PS 2.6X5	
	7-682-548-04	SCREW +P 3X8	
	7-682-645-01	SCREW +PS 3X4	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
	7-682-547-04	SCREW +BVTT 3X6 (S)	
	7-682-549-09	SCREW +BVTT 3X10 (S)	

STOP RING

Ref. No.	Part No.	Description	Remark
	7-624-102-04	STOP RING 1.5, TYPE -E	

When indicating parts by reference number, please include the board name.

SECTION 7
ELECTRICAL ADJUSTMENTS

During the adjustment, see the Parts Arrangement Diagram relevant to the adjustment on page 236.

7-1. PRE-ADJUSTMENT PREPARATIONS

Necessary items and indications for total adjustment of electric circuit of this machine will be described in this chapter.

7-1-1. Instruments to be Used

1) Color TV
2) Oscilloscope 1 or 2 phenomena, band more than 15 MHz, delay mode, as provided.
3) Frequency counter (min, 8 digits)
4) PAL pattern generator
5) SECAM pattern generator (SLV-777VP only)
6) Digital voltmeter
7) Audio level meter
8) Audio generator
9) Attenuator
10) Distortion factor meter
11) Voice multiple signal generator
12) Alignment tape
    Part code: H7099052H (MH-2)
13) HiFi alignment tape

7-1-2. Connection

Unless otherwise specified, connect and adjust the measuring instruments as shown in the following diagram.

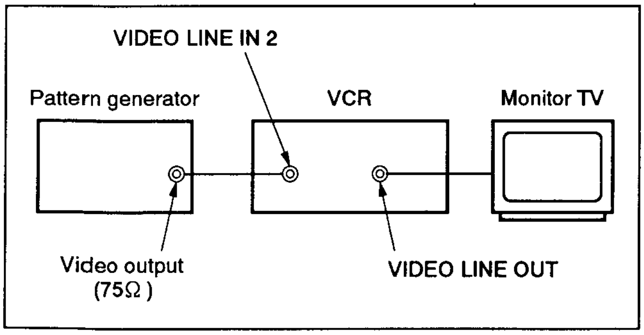

VIDEO LINE IN 2
Pattern generator
VCR
Monitor TV
Video output (75Ω)
VIDEO LINE OUT

Fig. 7-1.

7-1-3. Setup for Adjustment

In this adjustment, PAL pattern generator is connected with LINE 1 input signal terminal. When check to tuner, connected AERIAL terminal. Check that the amplitudes of video signal SYNC signal, of picture portions, and of burst signals are flat at approximately 0.3, 0.7 and 0.3V, respectively, and that the level ratio of the burst signal and "red" signal are 0.30:0.66. Fig. 7-2. shows video signals (color bars) used in adjusting the video section.

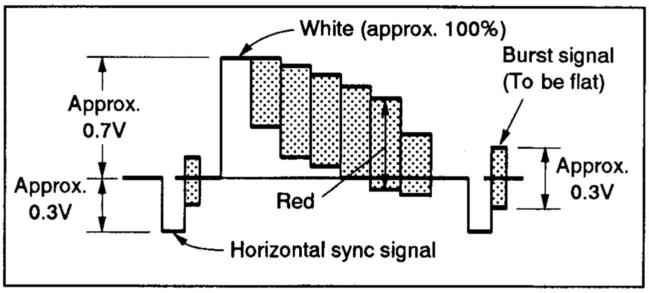

White (approx. 100%)
Burst signal (To be flat)
Approx. 0.7V
Approx. 0.3V
Red
Approx. 0.3V
Horizontal sync signal

Fig. 7-2.

7-1-4. Alignment Tape (MH-2)

	Time	Video signal	Audio signal
1	10 min	Stair-step	6 kHz
2	5 min	———	3 kHz
3	10 min	Color bar	1 kHz
4	3 min	RF sweep	———

Table 7-1.

7-1-5. Specified I/O Level and Impedance

Input/output terminal

Video inputs	LINE IN: phono jacks EURO-AV: 21-pin (Pin ⑳) 1 Vp-p, 75Ω, unbalanced, sync negative
Audio inputs	LINE IN: phono jacks 47 kΩ, –7.5 dBs (0 dBs=0.775 Vrms) EURO-AV: 21-pin (Pin ② and ⑥) More than 10 kΩ, –4 dBs
Video outputs	LINE OUT: phono jack EURO-AV: 21-pin (Pin ⑲) 1 Vp-p, 75Ω, unbalanced sync negative
Audio outputs	LINE OUT: phono jack –7.5 dBs at load impedance 47 kΩ Output impedance: less than 10 kΩ EURO-AV: 21-pin (Pins ① and ③) Output impedance: less than 1 kΩ –4 dBs with 10 kΩ load

7-1-6. Operating Method When the Front Panel Removed

When adjust with the front panel (SW BLOCK, JOG/SHUTTLE, JS-20 board and TK-12 board) removed, connect the resisters as shown below and operate with the remote commander.

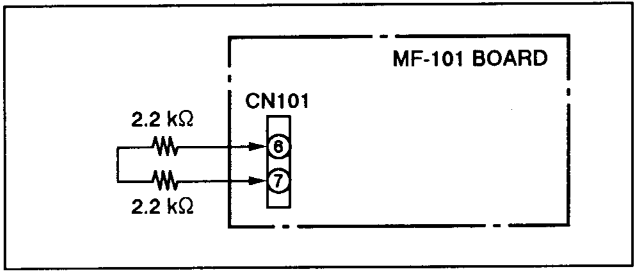
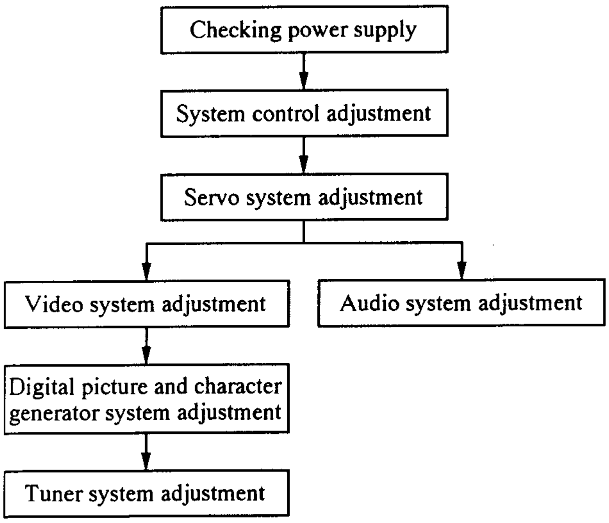

MF-101 BOARD
CN101
2.2 kΩ
8
7
2.2 kΩ

Fig. 7-3.

7-1-7. Adjusting Sequence

Make the electrical adjustment in the following sequence.


Checking power supply
System control adjustment
Servo system adjustment
Video system adjustment
Audio system adjustment
Digital picture and character generator system adjustment
Tuner system adjustment

7-2. POWER SUPPLY CHECK (POWER BLOCK)

Mode	E-E
Measuring instrument	Digital voltmeter
UNSW 5.8V check	
Measurement point	Pin ① of CN411
Specified value	5.8 ± 0.25 Vdc
UNSW –30V check	
Measurement point	Pin ③ of CN412
Specified value	–30.0 ± 2.5 Vdc
UNSW 37V check	
Measurement point	Pin ⑨ of CN411
Specified value	37.0 ± 3.0 Vdc
SW 5V check	
Measurement point	Pin ③ of CN411
Specified value	$5.00^{+0.15}_{-0.10}$ Vdc
SW 9V check	
Measurement point	Pin ⑬ of CN411
Specified value	9.0 ± 0.3 Vdc
SW 12V check	
Measurement point	Pin ⑪ ofCN411
Specified value	12.0 ± 0.3 Vdc
MTR 12V check	
Measurement point	Pin ⑩ of CN412
Specified value	12.0 ± 0.3 Vdc
HEATER 3.2V check	
Measurement point	+: Pin ⑤ of CN412 –: Pin ④ of CN412
Specified value	3.2 ± 0.2V

Checking method:

1) Confirm that each voltage meets its specified value.

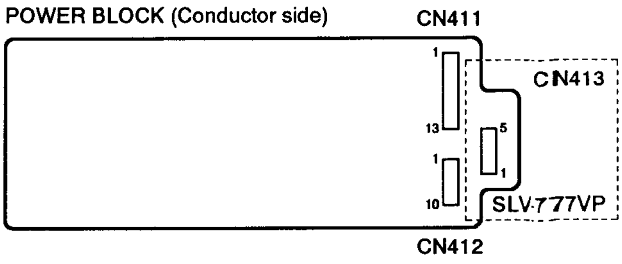

POWER BLOCK (Conductor side)
CN411
1
13
1
10
CN413
5
1
SLV-777VP
CN412

Fig. 7-4.

7-3. SYSTEM CONTROL ADJUSTMENT

7-3-1. Clock Adjustment (MF-94 Board)

Measurement Point	Pin ⑧ of IC201
Measuring Instrument	Interval counter
Adjusting Element	CV201
Specified Value	0.1249995 ± 0.0000005 sec

Connection:

1) Connect the connecting point of R109 and R110 on the MF-101 board to ground.

Adjusting method:

1) Pass a 9-state binary counter through Pin ⑧ of IC201 to divide the 4096 Hz frequency nine times and transform to 8 Hz. Measure the cycle.
2) Adjust CV001 so that an 8 Hz cycle equals 0.1249995 ± 0.0000005 sec.

Note: Do not adjust CV001 except when replacing microcomputers.

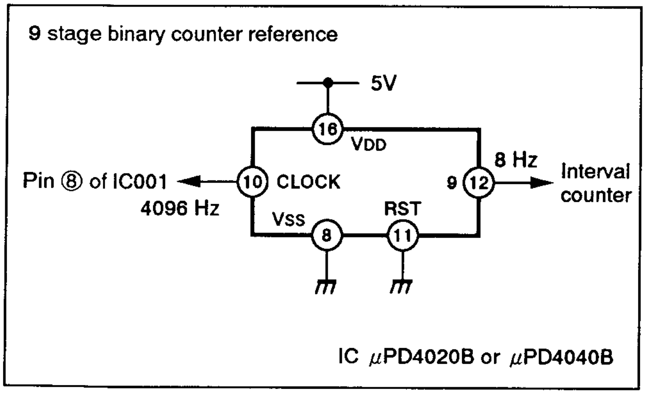

9 stage binary counter reference
5V
16
VDD
8 Hz
Interval counter
Pin ⑧ of IC001
4096 Hz
10
CLOCK
9
12
RST
Vss
8
11
IC µPD4020B or µPD4040B

Fig. 7-5.

7-4. SERVO SYSTEM ADJUSTMENT

7-4-1. Switching Position Adjustment (MA-62 Board)

Mode	PB
Signal	Alignment tape: SP stair-step section
Measurement Point	CH1: Pin ⑱ of CN562 CH2: Pin ⑫ of CN582 (RF SWP)
Measuring Instrument	Oscilloscope
Adjusting Element	RV501
Specified Value	6.5 ± 0.5H (416 ± 32 µsec)

Adjusting method:

1) Once set to STOP mode, then to PB mode.
2) Check that the switching position is 6.5 ± 0.5H. (416 ± 32 µsec)
   If not meet the specified value, turn RV501 and repeat steps 1) to 2).

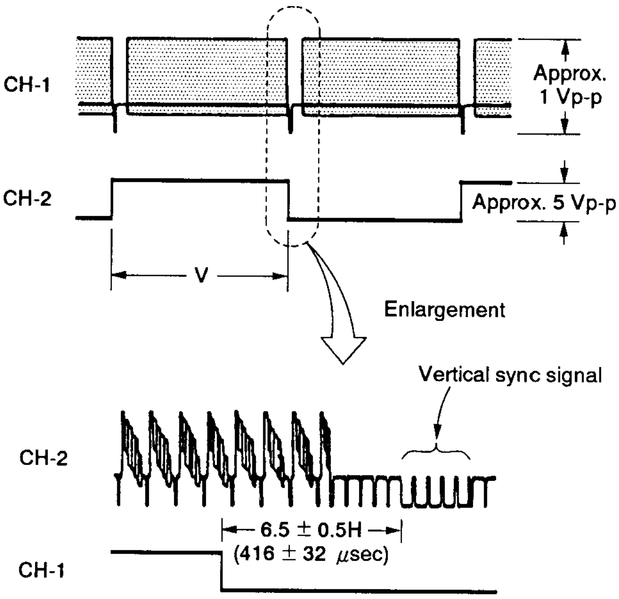

CH-1
Approx. 1 Vp-p
CH-2
Approx. 5 Vp-p
V
Enlargement
Vertical sync signal
CH-2
6.5 ± 0.5H
(416 ± 32 µsec)
CH-1

Fig. 7-6.

7-5 SYSTEM ADJUSTMENTS

Adjust the video system in the following sequence as a rule. The color video signal supplied from the pattern generator is used as a video input signal for video system adjustment in the recording mode.
Make sure that sync and color burst signals meet requirements specified at setup of adjustment shown in Fig. 7-2.

[Adjusting sequence]

7-5-1. Playback Y Signal Level Adjustment
7-5-2. Y Signal NR Level Adjustment
7-5-3. Sync AGC Adjustment
7-5-4. Sync Tip Carrier Set and Deviation Adjustment
7-5-5. White Clip, Dark Clip Adjustment
7-5-6. Recording Y Signal Level Adjustment
7-5-7. Recording Chroma Level Adjustment
7-5-8. PAL JOG AFC Adjustment
7-5-9. 0.5H CCD Level Adjustment
7-5-10. SECAM Discrimination Adjustment

7-5-1. Playback Y Signal Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV708
Specified Value	1.00 ± 0.05 Vp-p

Note: 1) Make this adjustment with the EDIT ON/OFF button set to off.
2) VIDEO LINE OUT terminal must be terminated at 75Ω ± 1%.

Adjusting method:
1) With RV708, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

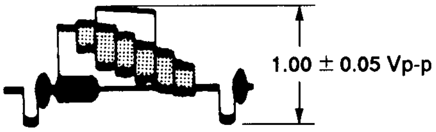


Fig. 7-7.

7-5-2. Y Signal NR Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	Pin ⑩ of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	RV707
Specified Value	Less than 30 mVp-p

Adjusting method:
1) Adjust to eliminate level differences for each H step with RV707.

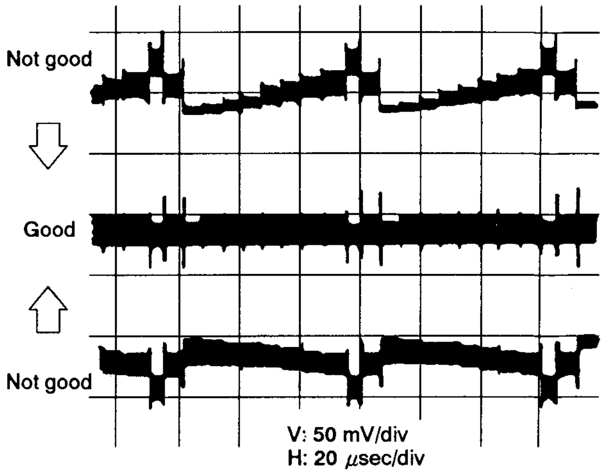


Fig. 7-8.

7-5-3. Sync AGC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV701
Specified Value	1.00 ± 0.05 Vp-p

Note: VIDEO LINE OUT terminal must be terminated at 75Ω .

Adjusting method:
1) With RV701, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

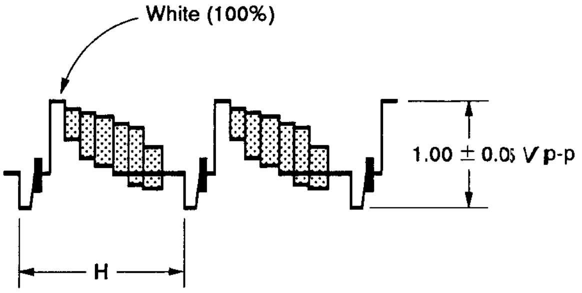


Fig. 7-9. SYNC AGC adjustment

7-5-4. Sync Tip Carrier Set and Deviation Adjustment (YC-65 Board)

Before starting the adjustment, be sure to check that recording Y signal level adjustment has been completed.

Sync tip carrier set	
Mode	E-E
Signal	No signal (Note 2)
Measurement Point	Pin ㉔ of IC701
Measuring Instrument	Frequency counter
Adjusting Element	RV703
Specified Value	3.80 ± 0.05 MHz
Deviation adjustment	
Mode	REC and PB
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV702
Specified Value	1.00 ± 0.05 Vp-p

Note 1) VIDEO LINE OUT terminal must be terminated at 75Ω.

2) To make no signal input, insert a shorting plug into VIDEO LINE IN 2 terminal.

Adjusting method:

1) Make a no signal state and select the E-E made.
2) Connect the frequency counter to the Pin ㉔ of IC701 and adjust to 3.80 ± 0.05 MHz with RV703.
3) Input the color bar signal to make recording.
4) Playback the recorded tape portion and check that the playback Y signal level is 1.00 ± 0.05 Vp-p.

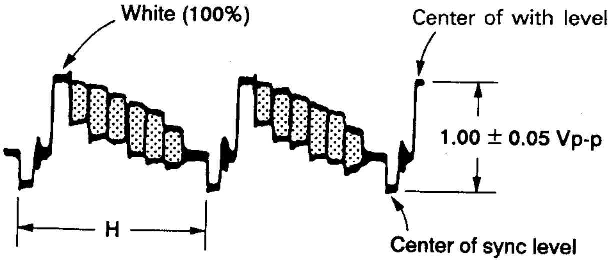


Fig. 7-10. Deviation adjustment

5) When the specified value is not met, input the color bar signal to select the E-E mode. Adjust RV702 to correct a playback Y signal level error, and then, repeat the steps 1) through 4) above.

7-5-5. White Clip and Dark Clip Adjustments (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑳ of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	White clip: RV705 Dark clip: RV704
Specified Value	White clip: 180 ± 10% Dark clip: 40 ± 10%

Adjusting method:

1) With RV705, adjust the white clip level to 180 ± 10% of the white level (100%).
2) With RV704, adjust the dark clip level to 40 ± 10% of the white level (100%).

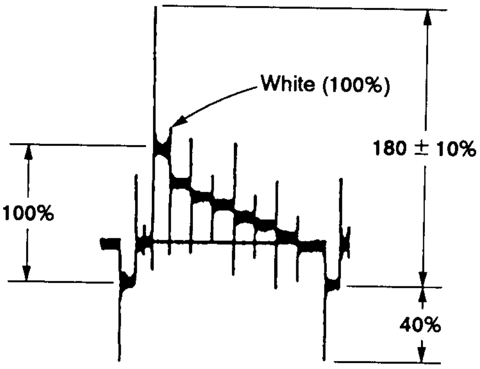


Fig. 7-11.

7-5-6. Recording Y Signal Level Adjustment (YC-65 Board/RP-63 Board)

Mode	RE
Signal	No signal
Measurement Point	Pin ③ of CN804 (RP-63 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV710 (YC-65 board)
Specified Value	1.7 ± 0.1 Vp-p

Adjusting method:

1) With RV710, adjust the Y REC RF signal level to 1.7 ± 0.1 Vp-p.

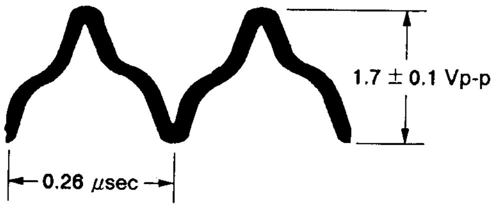


Fig. 7-12.

7-5-7. Recording Chroma Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑦ of CN701
Measuring Instrument	Oscilloscope
Adjusting Element	RV801
Specified Value	100 ± 10 mVp-p

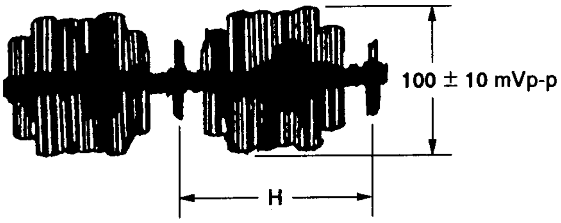


Fig. 7-13.

7-5-8. PAL JOG AFC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑲ of IC860
Measuring Instrument	Digital voltmeter
Adjusting Element	RV860
Specified Value	2.65 ± 0.05 Vdc

Adjusting method:

1) Adjust RV860 so that the voltage at Pin ⑲ of IC860 become 2.65 ± 0.05 Vdc.
   At this time confirm that the cycle of delta wave at Pin ⑳ of IC860 is 32 μsec.

Pin ⑳ of IC860

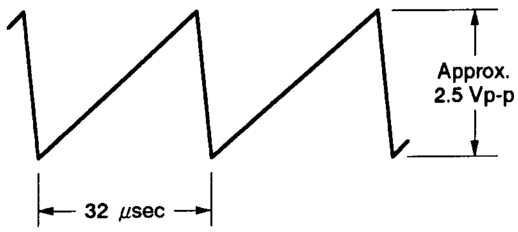


Fig. 7-14.

7-5-9. 0.5H CCD Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ② of IC802
Measuring Instrument	Oscilloscope
Adjusting Element	RV861
Specified Value	Same signal level with Pin ⑦ of IC802.

Adjusting method:

1) Measure the signal level at Pin ⑦ of IC802. (Approx. 2 Vp-p)
2) Adjust RV861 so that the signal levels at Pins ② and ⑦ of IC802 become same.

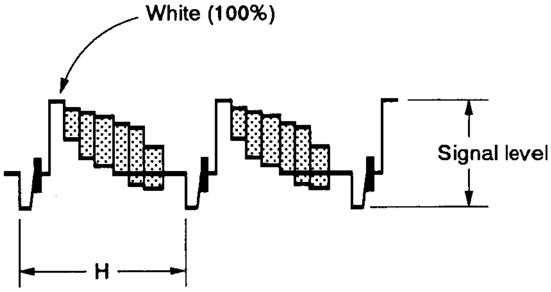


Fig. 7-15.

7-5-10. SECAM Discrimination Adjustment (SD-4 Board) (SLV-777VP Only)

Mode	E-E
Signal	SECAM Color bar
Measurement Point	Pin ⑨ of IC850
Measuring Instrument	Oscilloscope
Adjusting Element	RV850
Specified Value	4.5 ± 0.1 Vp-p

Adjusting method:

1) Adjust RV850 so that the amplitude of 1/2 fH waveform becomes 4.5 ± 0.1 Vp-p.

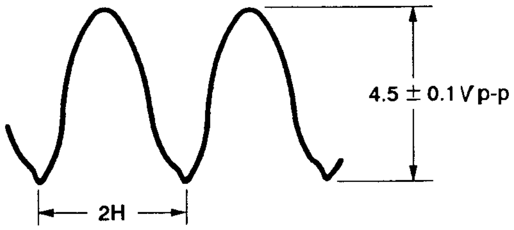


Fig. 7-16.

7-6. DIGITAL PICTURE AND CHARACTER GENERATOR SYSTEM ADJUSTMENTS

- Connect the monitor TV to EURO-AV connector (Pin ⑲ of CNJ005 on IO-40 board) or Pin ⑱ of CN562 on MA-62 board, then perform the adjustment.

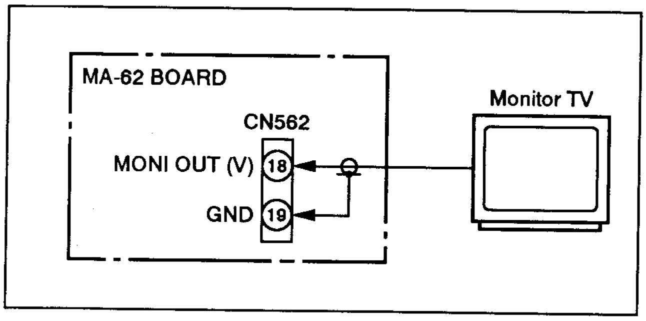


Fig. 7-17.

- When adjusting the PI-20 board, remove the HF-9 board as necessity.

7-6-1. AGC Adjustment (PI-20 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑭ of IC208
Measuring Instrument	Oscilloscope
Adjusting Element	RV201
Specified Value	2.05 ± 0.1 Vp-p

Adjusting method:

1) Adjust with RV201 so that it becomes 2.05 ± 0.1 Vp-p.

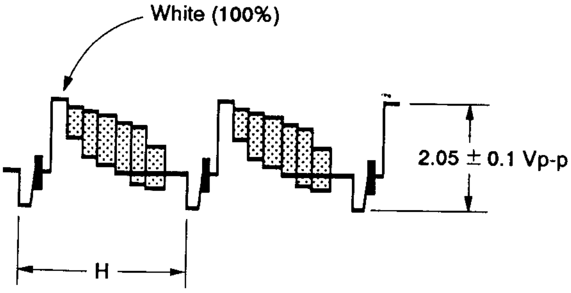


Fig. 7-18.

7-6-2. Read Clock Adjustment (DG-11 Board)

Mode	E-E (EDIT MONITOR)
Signal	Color bar
Measurement Point	EURO AV IN/OUT connector
Measuring Instrument	Monitor TV
Adjusting Element	T102
Specified Value	A=B

Adjusting method:

1) Adjust T102 so that the child pictures are positioned symmetrically.

   Note: Adjust the character position following the steps in "Character Position Adjustment".

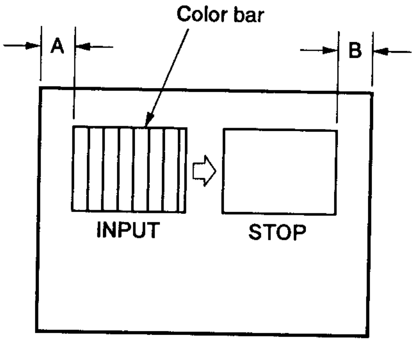


Fig. 7-19.

7-6-3. Write Clock Adjustment (DG-11 Board)

Mode	E-E
Signal	Color bar
Measurement Point	EURO AV IN/OUT connector
Measuring Instrument	Monitor TV
Adjusting Element	T101
Specified Value	A=B

Adjusting method:

1) Adjust T101 so that the image center of the child picture in INPUT side matches with the child picture frame center.

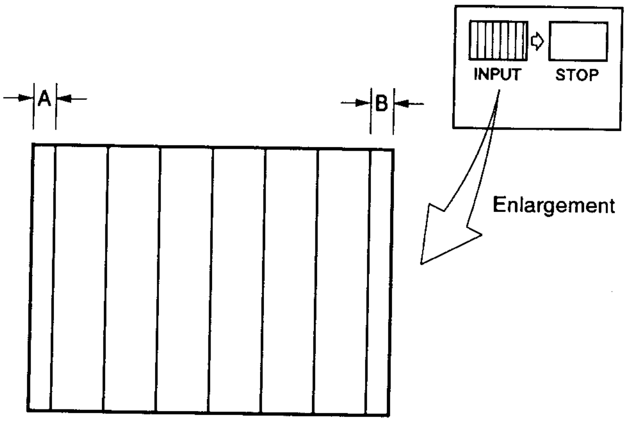


Fig. 7-20.

7-6-4. TINT Adjustment (DG-11 Board)

Mode	E-E (EDIT MONITOR)
Signal	Color bar
Measurement Point	Pin ⑰ of IC102
Measuring Instrument	Oscilloscope
Adjusting Element	RV104
Specified Value	A=B

Adjusting method:

1) Adjust RV104 so that the level A and level B become same.

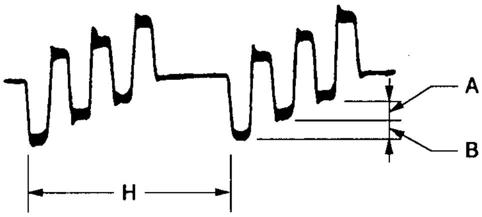


Fig. 7-21.

7-6-5. Clamp Level Adjustment (DG-11 Board)

Mode	PB (P in P)
Signal	Color bar
Measurement Point	Pin ⑥ of CN101
Measuring Instrument	Oscilloscope
Adjusting Element	RV101
Specified Value	A=0V

Adjusting method:

1) Adjust RV101 so that the pedestal levels of parent picture match with the levels of child picture.

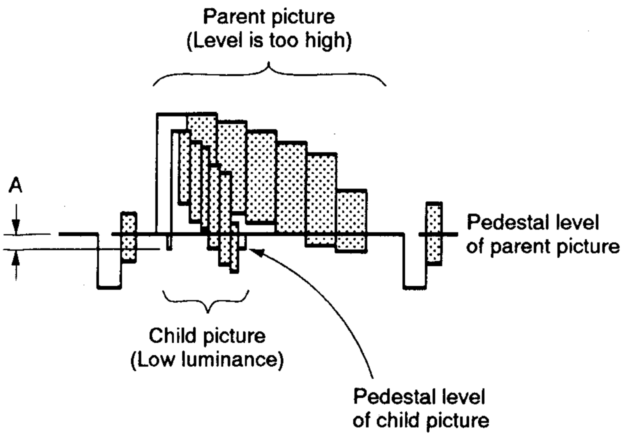


Fig. 7-22.

7-6-6. Hue and Color Level Adjustment (DG-11 Board)

Mode	E-E (P in P)
Signal	Color bar
Measurement Point	Pin ⑱ of CN562 (MA-62 board)
Measuring Instrument	Vectorscope
Adjusting Element	Hue: RV103 Color Level: RV102
Specified Value	The chroma luminance points in parent and child pictures should be overlapped.

Adjusting method:

1) Turn RV102 and RV103 alternately and match the chroma luminance point (higher luminance) of parent picture with the chroma luminance point (lower luminance) of child picture.

7-6-7. Character Generator Clock Check (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ㉘ of IC851
Measuring Instrument	Frequency counter
Specified Value	17.734476 MHz ± 100 Hz

Note: Attach 10 kΩ register to tip of the probe.

Checking method:

1) Confirm that the clock oscillation frequency is 17.734476 MHz ± 100 Hz.

7-6-8. AFC Adjustment (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ⑧ of IC685
Measuring Instrument	Oscilloscope
Adjusting Element	RV685
Specified Value	15625 ± 50 Hz

Connection:

1) Connect Pins ① and ⑨ of IC685 with 1 kΩ resistance.

Adjusting method:

1) Adjust RV685 so that the oscillation frequency is 15625 ± 50 Hz.

7-6-9. Character Position Adjustment (CG-10 Board)

Mode	E-E (EDIT MONITOR)
Signal	Color bar
Measurement Point	EURO AV IN/OUT connector
Measuring Instrument	Monitor TV
Adjusting Element	CV851
Specified Value	A=B

Note: Perform this adjustment after "Write Clock Adjustment".

Adjusting method:

1) Adjust CV851 so that the arrow mark is positioned at the center between the child pictures.

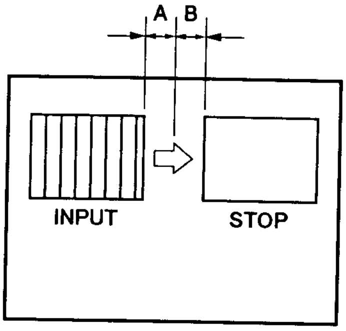


Fig. 7-23.

7-7. AUDIO SYSTEM ADJUSTMENTS

- Adjust the audio system in the LP mode, unless otherwise specified.
  Use the alignment tape.
- Adjust both Lch and Rch.

[Connection]

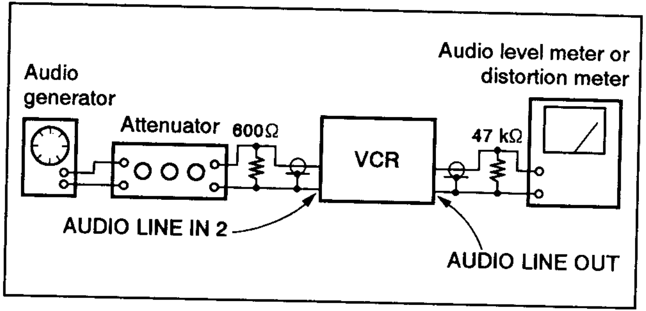


Fig. 7-24.

7-7-1. HI-FI Audio System Adjustment

- Set switches and knobs to the following positions to make adjustment unless otherwise specified.
  INPUT SELECT switch......LINE 2
  REC LEVEL knob......Set to –21 dBs.
  (Pins ① and ② of CN572 on MA-62 board)
- When perform the adjustment after removing the PI-20 board, connect Pin (A13) of CN583 and Pin (B10) of CN584 on the MA-62 board with jumper wire.
- When the tuner block is obstructive for adjustment, remove it.

[Adjusting sequence]

1. VCO fo adjustment
2. Switching pulse portion adjustment
3. Playback RF level adjustment
4. Playback level adjustment
5. AFM deviation adjustment
6. Level meter adjustment

1. VCO [illegible]stment (HF-9 board)

Mode	Recording
Signal	No signal
Measuring instrument	Frequency counter
1.3 MHz Adjustment	
Measurement point	Pin ③ of IC002
Adjusting element	RV008
Specified value	1.4 MHz ± 2 kHz
1.7 MHz Adjustment	
Measurement point	Pin ㉚ of IC002
Adjusting element	RV002
Specified value	1.8 MHz ± 2 kHz

Note: Connect the frequency counter through a probe of high input impedance (more than 10 MΩ) and low capacity (10 pF or less).

Checking method:

1) Connect the frequency counter to each measurement point.
2) Confirm that each frequency meet its specified value.

2. Switching pulse portion adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	CH1: Pin ⑨ of CN571 (MA-62 board) CH2: Pin ⑮ of CN571 (MA-62 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV006
Specified Value	Fig. 7-25.

Adjusting method:

1) Adjust RV006 for no dropout.
   (Turn and adjust RV006 to the mid-rotation of no dropout range.)

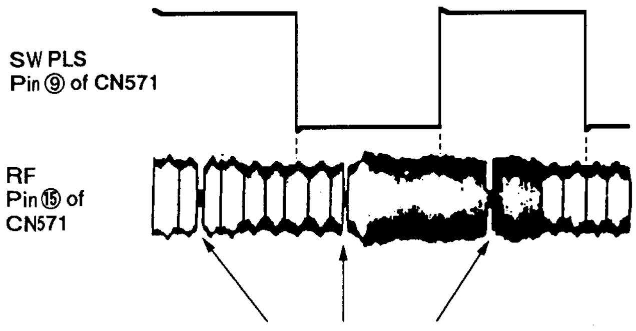


Fig. 7-25.

3. Playback RF level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (MH-2): Stair-step section
Measurement Point	Pin ⑪ of IC002
Measuring Instrument	Oscilloscope (DC range)
Adjusting Element	RV005
Specified Value	50 mVp-p

Connection:

1) Remove CN532 on MA-62 board, and input sine waveform of 1.4 MHz ± 2 kHz, 70 mVp-p to Pins ③ and ④ of CN571 from the signal generator.

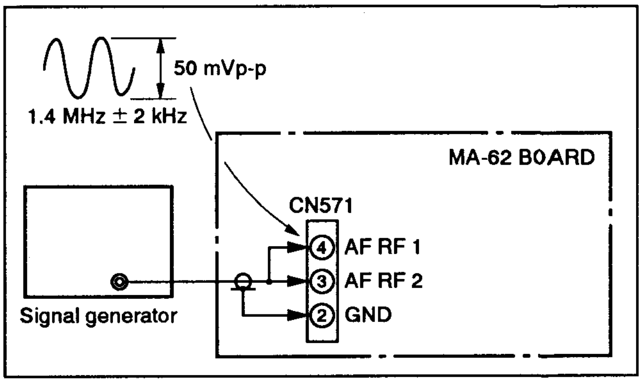


Fig. 7-26.

2) Connect the headset to the headphone terminal, and monitor the playback sound.

Adjusting method:

1) Turn RV005 fully counterclockwise (○) seeing from the soldering side of MA-62 board.
2) Confirm that the level at Pin ⑪ of IC002 is "L"(0V) and there is no playback sound.
3) Turn RV005 slowly clockwise (○) until the level at Pin ⑪ of IC002 becomes "H" (3.3V or more). Then, confirm that the audio signal of 6 kHz is played back.

4. Playback level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV007 Rch: RV004
Specified Value	-7.5 ± 0.1 dBs

Adjusting method:

1) Adjust a playback level to -7.5 ± 0.1 dBs for both L and R channels with RV007 and RV004, respectively.

5. AFM deviation adjustment (HF-9 board)

Mode	Recording and Playback
Signal	400 Hz, –7.5 dB: AUDIO LINE IN 2 L, R
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV009 Rch: RV003
Specified Value	–7.5 ± 0.5 dBs

Adjusting method:

1) Confirm the 400 Hz signal level at Pins ② (Lch) and ① (Rch) of CN572 on the MA-62 board is –21 ± 0.1 dBs.
2) Record the signals.
3) Play back the recorded portion.
4) Confirm that the AUDIO LINE OUT level meets the specification.
   If not, turn RV009 (Lch) or RV003 (Rch), and repeat steps 2) to 4).

6. Level meter adjustment (MF-94 board)

Mode	E-E
Signal	1 KHz, –7.5 dBs: AUDIO LINE IN 2 L, R
Measurement Point	REC level meter
Measuring Instrument	
Adjusting Element	Lch: RV201 Rch: RV202
Specified Value	0 dB

Adjusting method:

1) Adjust the REC level controls (L/R) so that the signal level at AUDIO LINE OUT is –6.5 ± 0.1 dBs.
2) Adjust RV201 (Lch) and RV202 (Rch) so that the REC level meters (L/R) indicate 0 dB, respectively.

7-7-2. Normal Audio System Adjustment

- Make adjustment in the SP mode, unless otherwise specified. Use a normal VHS cassette for an adjustment tape.
- Make adjustment with the switches set to the following positions.
  INPUT SELECT......LINE 2
- Set the AUDIO MONITOR mode to NORMAL on the menu screen.

[Adjusting sequence]

1. ACE head adjustment......See Mechanism Block Adjustment
2. E-E output level check
3. Recording bias adjustment
4. Overall level characteristic and distortion factor check
5. Overall S/N check

1. ACE head adjustment

See "Mechanism Block Adjustment".

2. E-E output level check

Mode	E-E
Signal	L, R : 400 Hz, –7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Adjusting Element	Audio level meter
Specified Value	–7.5 ± 2 dBs

Confirming method:

1) Simultaneously input a signal of 400 Hz, –7.5 dBs to both L and R channels of Audio Line Input.
2) Confirm that the audio output level is –7.5 ± 2 dBs.

3. Recording bias adjustment (MA-62 board)

Mode	REC and PB
Signal	400 Hz, –30 dBs 7 kHz, –30 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter
Adjusting Element	RV251
Specified Value	0 ± 1 dB

Adjusting method:

1) Supply a signal of 400 Hz, –30 dBs to Audio Line Input.
2) Connect the audio level meter to the Audio Line Output.
3) Adjust the attenuator so that the audio level meter will indicate –30 dBs.
4) Make recording in the SP mode.
5) Set an audio line input signal to 7 kHz and make recording.
6) Playback a recorded portion, and measure output levels at 400 Hz and 7 kHz.
7) Confirm that the 7 kHz playback output levels within a range of the 400 Hz playback output level 0 ± 1 dB. When beyond this range, adjust RV251 and repeat the steps 1) through 7) above.

4. Overall level characteristic and distortion factor check

Mode	REC and PB
Signal	400 Hz, –7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter and distortion factor gauge
Specified Value	Playback level: –7.5 ± 2 dBs Distortion factor: 4% or less

Confirming method:

1) Supply an audio signal of 400 Hz, –7.5dBs simultaneously to both L and R channels of Audio Line Input.
2) Make recording.
3) Playback a recorded portion.
4) Confirm that a playback level is –7.5 ± 2 dBs.
5) Confirm that a distortion factor is within 4%.

5. Overall S/N check

Mode	REC and PB
Signal	400 Hz, –7.5 dBs, and no signal
Measurement Point	AUDIO LINE OUT L
Measuring Instrument	Audio level meter
Specified Value	38 dB or more

Confirming method:

1) Supply a signal of 400 Hz simultaneously to both L and R channels of Audio Line Input.

Adjust the attenuator so that the L channel audio line output level will be –7.5 dBs.

2) Make recording.
3) With the REC mode held, make the no signal state. (Short an input for both L and R)
4) Playback a recorded portion, and confirm that there is a level difference of 38 dB or more between 400 Hz portion and no signal portion (immediately after a 400 Hz signal).

7-8. TUNER SYSTEM ADJUSTMENTS

7-8-1. RF AGC Adjustment (IF001 Unit/TU-120 Board)

Signal	Broadcast TV signal
Adjusting Element	VR of IF001 unit (Fig. 7-27.)

Adjusting method:

1) Adjust the monitor TV to a maximum contrast.
2) Turn the VR to make snow noise visible.
3) Turn the VR in an opposite direction and set it to the point where the snow noise disappears.
4) Receive each channel and confirm that there are no beat picture corruption snow noise due to cross modulation.

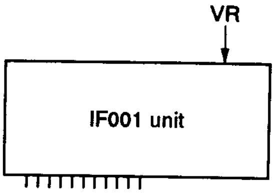


Fig. 7-27.

7-8-2. Receive Separation Adjustment (TU-120 Board) (SLV-777/AS/NC/VP)

Signal	Stereo Lch: 400 Hz, 100% modulation Rch: No modulation
Connection Point	AUDIO LINE OUT R
Measuring Instrument	Oscilloscope
Adjusting Element	RV001

Setting of switches:

- RV103 (MF-101 board)......Center click
- RV104 (MF-104 board)......Center click

Adjusting method:

1) Set the sound multiplex signal generator in the Stereo mode, and set only Lch to 400 Hz, 100% modulation.
2) Connect the oscilloscope to the Rch of Audio Line Output.
3) Adjust rv001 to minimize Rch output.
   When this is done, do not fully turn RV001.
   (The "STEREO" indication must be illuminated).

7-9. NAICAM SYSTEM ADJUSTMENTS (SLV-777UB/NC)

7-9-1. Eye Pattern Adjustment (NA-7 Board)

Mode	NAICAM ch received
Signal	Color bar
Measurement Point	CH1: Pin ⑲ of IC001 CH2: Pin ⑳ of IC001
Measuring Instrument	Oscilloscope (X-Y mode)
Adjusting Element	CV01

Adjusting method:

1) Confirm that waveform as OK in Fig observed clearly and with out tilt.

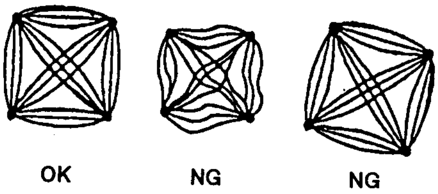


Fig. 7-28.

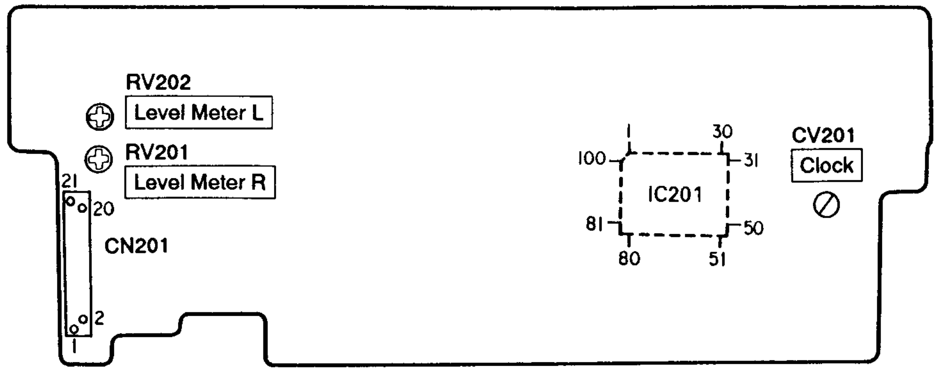
7-9-2. VCO Adjustment (NA-7 Board)

Mode	NICAM ch received
Signal	no-signal
Measurement Point	Pin ㉖ of IC001
Measuring Instrument	Frequency counter
Adjusting Element	CV02
Specified Value	5.824 MHz ± 30 Hz

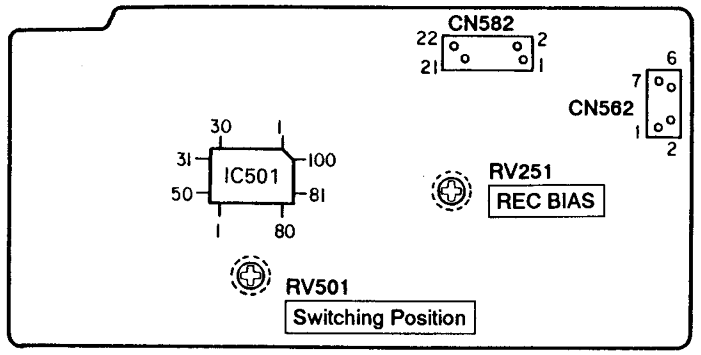
Note: Shorted Pins ⑫ and ㉑ of IC001.

7-10. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM

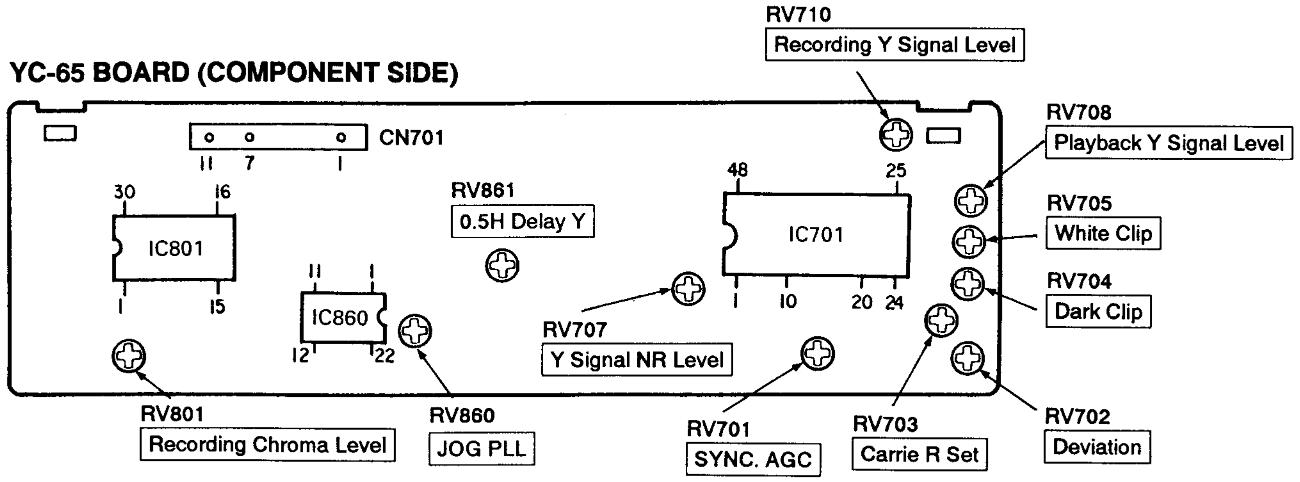
MF-94 BOARD (COMPONENT SIDE)


RV202
Level Meter L
RV201
Level Meter R
CN201
21
20
2
1
IC201
1
30
100
31
81
50
80
51
CV201
Clock

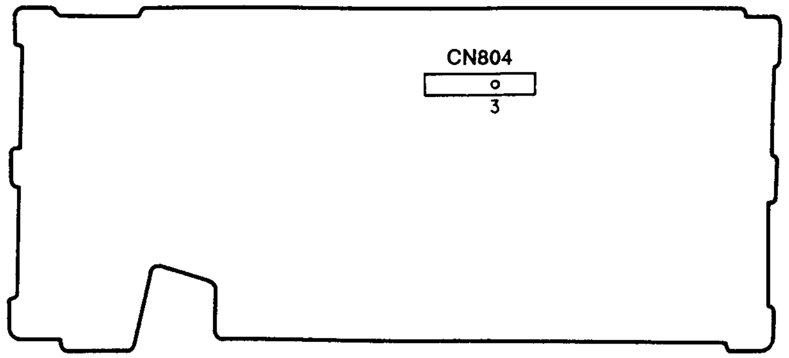
MA-62 BOARD (CONDUCTOR SIDE)


CN582
22
2
21
1
CN562
6
7
1
2
IC501
30
1
31
100
50
81
1
80
RV251
REC BIAS
RV501
Switching Position

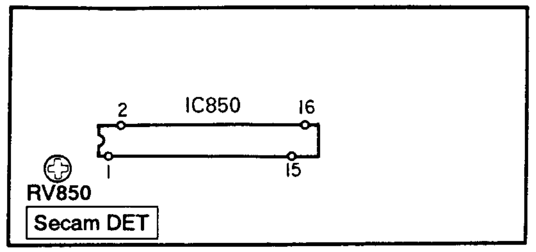
YC-65 BOARD (COMPONENT SIDE)


RV710
Recording Y Signal Level
CN701
11
7
1
RV708
Playback Y Signal Level
IC801
30
16
1
15
RV861
0.5H Delay Y
IC701
48
25
1
10
20
24
RV705
White Clip
RV704
Dark Clip
IC860
11
1
12
22
RV707
Y Signal NR Level
RV801
Recording Chroma Level
RV860
JOG PLL
RV701
SYNC. AGC
RV703
Carrie R Set
RV702
Deviation

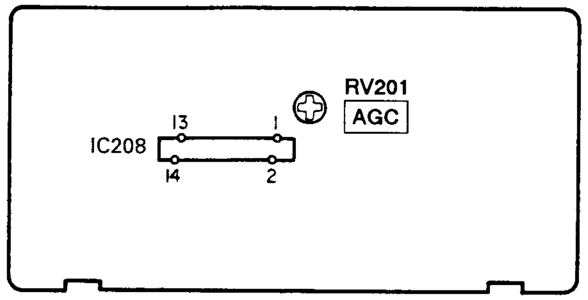
RP-63 BOARD (COMPONENT SIDE)



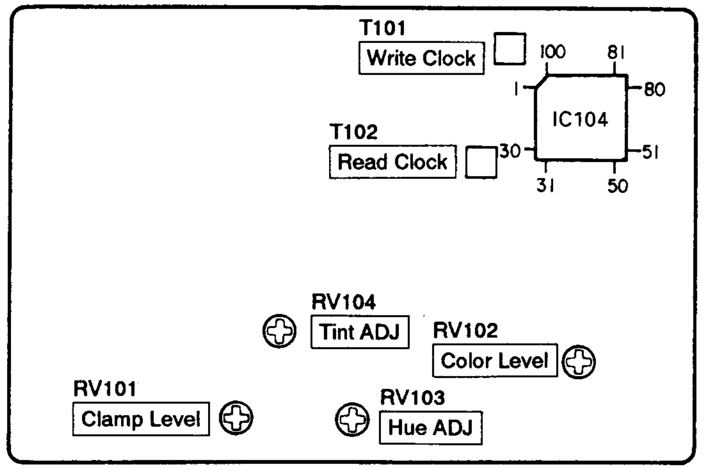
SD-4 BOARD (COMPONENT SIDE)


IC850
2
16
1
15
RV850
Secam DET

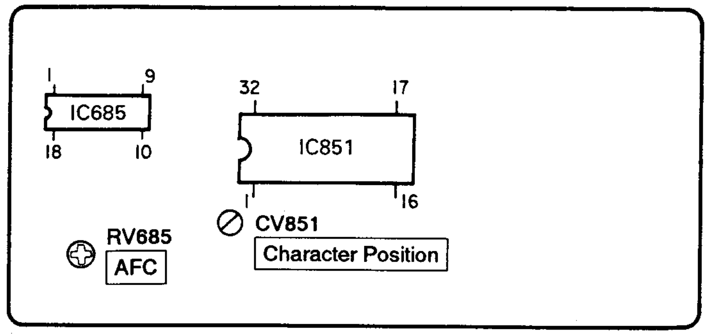
PI-20 BOARD (COMPONENT SIDE)


RV201
AGC
IC208
13
1
14
2

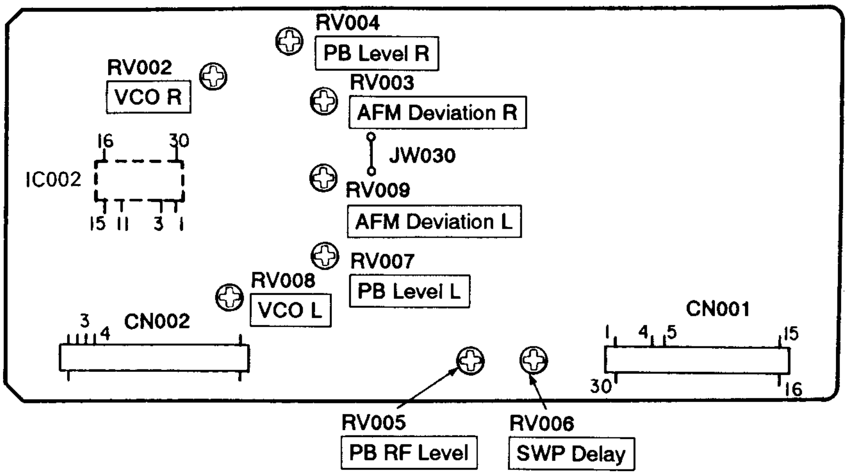
DG-11 BOARD (COMPONENT SIDE)


T101
Write Clock
IC104
100
81
1
80
T102
Read Clock
30
51
31
50
RV104
Tint ADJ
RV102
Color Level
RV101
Clamp Level
RV103
Hue ADJ

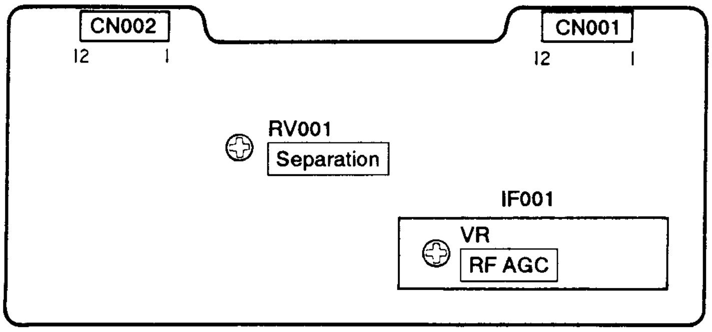
CG-10 BOARD (COMPONENT SIDE)


IC685
1
9
18
10
IC851
32
17
1
16
CV851
Character Position
RV685
AFC

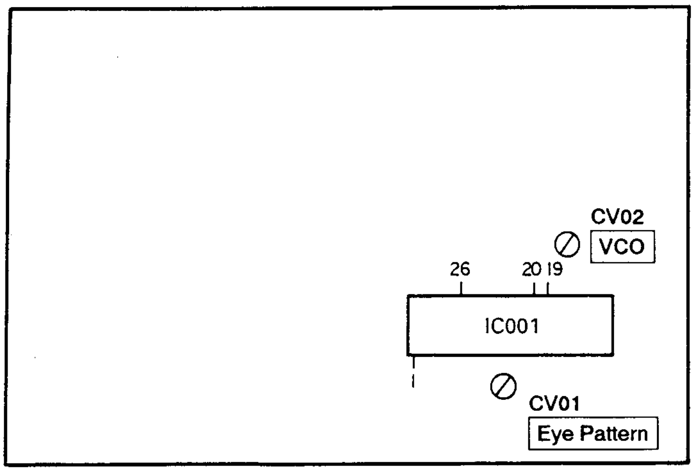
HF-9 BOARD (COMPONENT SIDE)


RV004
PB Level R
RV002
VCO R
RV003
AFM Deviation R
JW030
IC002
16
30
15
11
3
1
RV009
AFM Deviation L
RV007
PB Level L
RV008
VCO L
CN002
3
4
CN001
1
4
5
15
30
16
RV005
PB RF Level
RV006
SWP Delay

TU-120 BOARD (COMPONENT SIDE)


CN002
12
1
CN001
12
1
RV001
Separation
IF001
VR
RF AGC

MA-7 BOARD (COMPONENT SIDE)


CV02
VCO
26
20
19
IC001
1
CV01
Eye Pattern

SLV-777/AS/NC/UB/VP

8/15

RMT-V5B

SONY®

SERVICE MANUAL

AEP, E Model
SLV-777

Australian Model
SLV-777AS

AEP, New Zealand Model
SLV-777NC

UK Model
SLV-777UB

ME, Germany Model
SLV-777VP

SUPPLEMENT-1

File this supplement with the service manual.

1. We send you in addition the schematic diagram, printed wiring diagram and electrical parts list for the power supply unit.
2. Please correct parts code of IC501 on page 192 as follows:

IC501 8-752-815-90 IC CPX80624-009Q

⬇

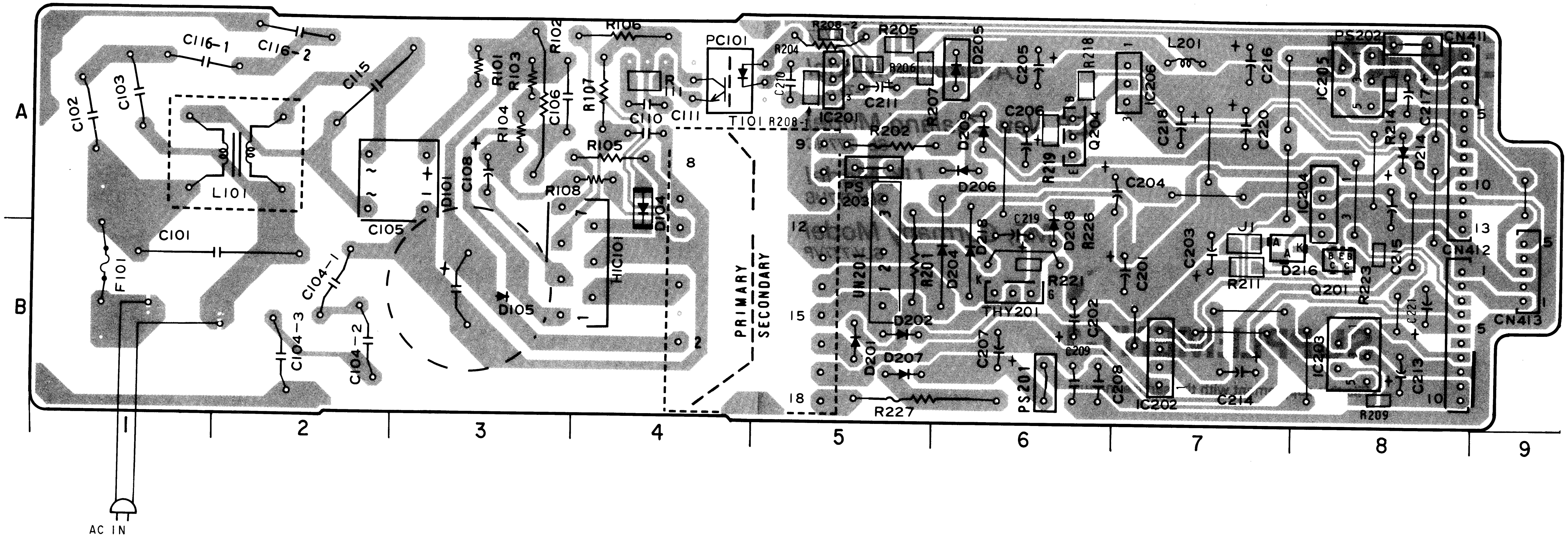
8-752-814-58 IC CPX80624-029Q

robić !!

SECTION 1
DIAGRAMS

1-1. PRINTED WIRING BOARD

POWER BLOCK BOARD


A
B
1
2
3
4
5
6
7
8
9
AC IN
F101
C101
C102
C103
C116-1
C116-2
C115
L101
C105
C104-1
C104-2
C104-3
D101
C108
R101
R102
R103
R104
C106
R107
R106
R105
R108
R111
C110
C111
D104
D105
HIC101
PC101
T101
PRIMARY
SECONDARY
R204
R205
R206
R207
R208-1
R208-2
C210
C211
IC201
D205
C205
R218
L201
C216
IC206
C206
R202
D209
R219
Q204
C218
C220
IC205
PS202
CN411
R214
D214
C217
PS203
D206
C204
IC204
UN201
R201
D204
D218
C219
D208
R226
R221
THY201
C201
C203
J1
D216
R211
Q201
R223
C215
CN412
C221
CN413
D202
D201
D207
C207
C202
C209
PS201
C208
IC202
C214
IC203
C213
R209
R227
9
12
15
18
10
13
5

• **SEMICONDUCTOR LOCATION**

Pef. No.	Location	Pef. No.	Location	Pef. No.	Location
CN411	A – 8	D205	A – 6	IC201	A – 5
CN412	B – 8	D206	A – 6	IC202	B – 7
CN413	B – 9	D207	B – 5	IC203	B – 8
		D208	A – 6	IC204	A – 8
D101	A – 3	D209	A – 6		
D104	A – 4			IC205	A – 8
D105	B – 3	D214	A – 8	IC206	A – 7
D201	A – 5	D216	B – 7		
		D218	B – 6	Q201	B – 8
D202	B – 5			Q204	A – 6
D204	B – 6	HIC101	B – 4		

〈 DIODE 〉

D101	⚠	8-719-510-06	DIODE	S1WB60
D104	⚠	9-901-003-01	DIODE	D1F60
D105	⚠	9-901-003-01	DIODE	D1F60
D201		8-719-510-26	DIODE	D1NL20
D204		8-719-500-15	DIODE	S3S4M
D205	⚠	8-719-500-70	DIODE	D5S4M
D206		8-719-980-78	DIODE	ERA83-006
D207		8-719-980-78	DIODE	ERA83-006
D208		8-719-110-49	DIODE	RD18ESB2
D209	⚠	8-719-510-26	DIODE	D1NL20
D214		8-719-110-30	DIODE	RD12ESB1
D216		8-719-914-43	DIODE	DAN202K
D218		9-998-289-01	DIODE	RD43FB2
D222		8-719-510-26	DIODE	D1NL20

Notes for printed wiring board:

- ○— : indicated a lead wire mounted on the component side.
- —— : indicated a lead wire mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.

〈 IC 〉

IC201	8-759-420-19	IC	AN1431T
IC202	9-998-291-01	IC	PQ12RF11
IC203	1-808-796-11	IC	SI3120CS
IC205	8-749-920-43	IC	SI3050CA
IC206	8-759-604-94	IC	M5F79M06L

〈 TRANSISTOR 〉

Q201	8-729-920-28	TRANSISTOR	FMG9
Q204	8-929-140-98	TRANSISTOR	2SD77-34

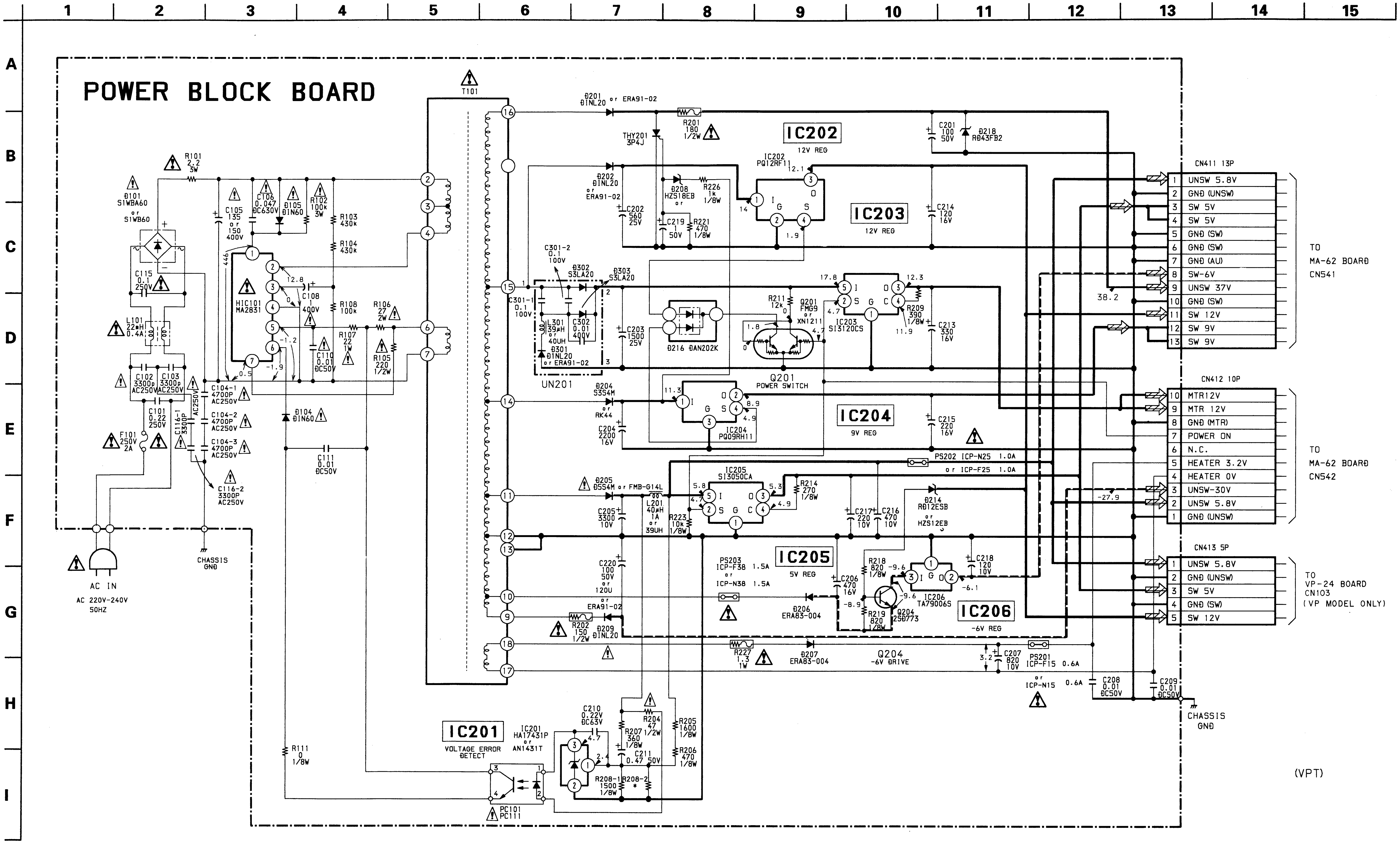
Notes for schematic diagram:

- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minuts side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W (Chip resistors: 1/10W) unless otherwise noted.
  kΩ: 1000Ω
- All capacitors are in μF unless otherwise noted. PF: μμF
  50V or less are not indicated except for electrolytics and tantalums.
- -⊡- : fusible resistor.
- ☐ : adjustment for repeair.
- ━ : B + Line.
- ▬ ▬ ▬ : B – Line.
- ⇨ : IN/OUT direction of (+, –) B LINE.
- Voltages are DC between measurement points and ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.

When indicating parts by reference number, please include the board name.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

1-2. SCHEMATIC DIAGRAM • See page 4 for note.


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
POWER BLOCK BOARD
T101
R101 2.2 3W
Đ101 S1WBA60 or S1WB60
C115 0.1 250V
L101 22mH 0.4A
C102 3300p AC250V
C103 3300p AC250V
C101 0.22 250V
F101 250V 2A
C116-1 3300P AC250V
C104-1 4700P AC250V
C104-2 4700P AC250V
C104-3 4700P AC250V
C116-2 3300P AC250V
C105 135 or 150 400V
C106 0.047 ĐC630V
Đ105 ĐIN60
R102 100k 3W
R103 430k
R104 430k
HIC101 MA2831
C108 1 400V
R108 100k
R106 27 2W
R107 22 1W
R105 220 1/2W
C110 0.01 ĐC50V
Đ104 ĐIN60
C111 0.01 ĐC50V
R111 0 1/8W
AC IN
AC 220V-240V 50HZ
CHASSIS GNĐ
Đ201 ĐINL20 or ERA91-02
R201 180 1/2W
THY201 3P4J
IC202
12V REG
IC202 PQ12RF11
C201 100 50V
Đ218 RĐ43FB2
Đ202 ĐINL20 or ERA91-02
Đ208 HZS18EB
R226 1k 1/8W
C202 560 25V
C219 1 50V
R221 470 1/8W
IC203
12V REG
C214 120 16V
C301-2 0.1 100V
Đ302 S3LA20
Đ303 S3LA20
C301-1 0.1 100V
L301 39μH or 40UH
C302 0.01 400V
Đ301 ĐINL20 or ERA91-02
UN201
C203 1500 25V
Đ216 ĐAN202K
R211 12k
Q201 FMG9 or XN1211
IC203 SI3120CS
R209 390 1/8W
C213 330 16V
Q201 POWER SWITCH
Đ204 S5S4M or RK44
C204 2200 16V
IC204 PQ09RH11
IC204
9V REG
C215 220 16V
PS202 ICP-N25 1.0A or ICP-F25 1.0A
Đ205 Đ5S4M or FMB-G14L
IC205 SI3050CA
R214 270 1/8W
C205 3300 10V
L201 40μH 1A or 39UH
R223 10k 1/8W
C217 220 10V
C216 470 10V
Đ214 RĐ12ESB or HZS12EB
C220 100 50V or 120U
PS203 ICP-F38 1.5A or ICP-N38 1.5A
IC205
5V REG
R218 820 1/8W
C218 120 10V
C206 470 16V
IC206 TA79006S
IC206
-6V REG
Đ206 ERA83-004
R219 820 1/8W
Q204 2SD773
R202 150 1/2W
Đ209 ĐINL20 or ERA91-02
R227 1.3 1W
Đ207 ERA83-004
Q204 -6V ĐRIVE
C207 820 10V
PS201 ICP-F15 0.6A or ICP-N15 0.6A
C208 0.01 ĐC50V
C209 0.01 ĐC50V
CHASSIS GNĐ
IC201
VOLTAGE ERROR ĐETECT
IC201 HA17431P or AN1431T
C210 0.22V ĐC63V
R204 47 1/2W
R205 1600 1/8W
R207 360 1/8W
C211 0.47 50V
R206 470 1/8W
R208-1 1500 1/8W
R208-2 *
PC101 PC111
CN411 13P
1 UNSW 5.8V
2 GNĐ (UNSW)
3 SW 5V
4 SW 5V
5 GNĐ (SW)
6 GNĐ (SW)
7 GNĐ (AU)
8 SW-6V
9 UNSW 37V
10 GNĐ (SW)
11 SW 12V
12 SW 9V
13 SW 9V
TO MA-62 BOARĐ CN541
CN412 10P
10 MTR12V
9 MTR 12V
8 GNĐ (MTR)
7 POWER ON
6 N.C.
5 HEATER 3.2V
4 HEATER 0V
3 UNSW-30V
2 UNSW 5.8V
1 GNĐ (UNSW)
TO MA-62 BOARĐ CN542
CN413 5P
1 UNSW 5.8V
2 GNĐ (UNSW)
3 SW 5V
4 GNĐ (SW)
5 SW 12V
TO VP-24 BOARĐ CN103 (VP MODEL ONLY)
38.2
-27.9
(VPT)

SECTION 2
ELECTRICAL PARTS LIST

POWER BLOCK

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohrns
  METAL : Metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example :
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  MF : μF, PF :μμF
- COILS
  MMH : mH, uH : μH

Ref. No.	Part No.	Description	Remarks
	1-413-601-11	POWER BLOCK(SLV-777/AS/NC)	
	1-413-608-11	POWER BLOCK(SLV-777VP)	
	1-413-609-11	POWER BLOCK(SLV-777UB)	
		***********	
		⟨ CAPACITOR ⟩	
C105 ⚠	9-901-004-01	ELECT 135uF 400V	
C115 ⚠	1-136-548-11	FILM 0. 1uF AC250V	
C201	1-124-514-11	ELECT 100uF 50V	
C204	1-126-234-11	ELECT 2200uF 16V	
C205	1-124-781-11	ELECT 3300uF 10V	
C206	1-126-103-11	ELECT 470uF 16V	
C211	1-124-042-11	ELECT 0. 47uF 50V	
C213	1-126-541-11	ELECT 330uF 16V	
C215	1-124-041-11	ELECT 220uF 16V	
C216	1-126-103-11	ELECT 470uF 10V	
C217	1-126-335-11	ELECT 220uF 10V	
C219	1-124-038-11	ELECT 1uF 50V	
C220	1-124-514-11	ELECT 100uF 50V	
		⟨ CONNECTOR ⟩	
CN411	1-506-478-11	CONNECTOR 13P	
CN412	1-506-475-11	CONNECTOR 10P	
CN413	1-506-470-11	CONNECTOR 5P	
		⟨ DIODE ⟩	
D101 ⚠	8-719-510-06	DIODE S1WB60	
D104 ⚠	9-901-003-01	DIODE D1F60	
D105 ⚠	9-901-003-01	DIODE D1F60	
D201	8-719-510-26	DIODE D1NL20	
D204	8-719-500-15	DIODE S3S4M	
D205 ⚠	8-719-500-70	DIODE D5S4M	
D206	8-719-980-78	DIODE ERA83-006	
D207	8-719-980-78	DIODE ERA83-006	
D208	8-719-110-49	DIODE RD18ESB2	
D209 ⚠	8-719-510-26	DIODE D1NL20	
D214	8-719-110-30	DIODE RD12ESB1	
D216	8-719-914-43	DIODE DAN202K	
D218	9-998-289-01	DIODE RD43FB2	
D222	8-719-510-26	DIODE D1NL20	
		⟨ FUSE ⟩	
F101	1-532-203-00	FUSE 250V T2A	
		⟨ HIC ⟩	
HIC101 ⚠	9-900-265-01	HIC MA2831	
		⟨ IC ⟩	
IC201	8-759-420-19	IC AN1431T	
IC202	9-998-291-01	IC PQ12RF11	
IC203	1-808-796-11	IC SI3120CS	
IC205	8-749-920-43	IC SI3050CA	
IC206	8-759-604-94	IC M5F79M06L	
		⟨ COIL ⟩	
L101 ⚠	9-998-280-01	CHOCK COIL ELF-18D290C	
L201	9-901-002-01	CHOCK COIL 40uH 1A	
		⟨ COUPLER ⟩	
PC101 ⚠	8-719-939-00	COUPLER, PHOTO PC111S	
		⟨ PROTECTOR ⟩	
PS201 ⚠	1-532-679-00	PROTECTOR, IC ICP-F15 0. 5A	
PS202 ⚠	1-532-637-00	PROTECTOR, IC ICP-F25 1A	
PS203 ⚠	1-532-675-00	PROTECTOR, IC ICP-F38 1. 5A	
		⟨ TRANSISTOR ⟩	
Q201	8-729-920-28	TRANSISTOR FMG9	
Q204	8-929-140-98	TRANSISTOR 2SD77-34	
		⟨ RESISTOR ⟩	
R102 ⚠	1-215-929-11	METAL 100 3W	
R105 ⚠	1-247-742-11	CARBON 180 1/2W	
R105 ⚠	1-247-746-11	CARBON 390 1/2W	
R106 ⚠	1-216-447-00	METAL 27 2W	
R107 ⚠	1-215-859-00	METAL 22 1W	
R108	1-249-469-11	CARBON 100K 1/4W	
R201 ⚠	1-212-988-00	FUSIBLE 180 1/2W	
R202 ⚠	1-212-986-00	FUSIBLE 150 1/2W	

Ref. No.	Part No.	Description	Remarks
R204 ⚠	1-247-735-11	CARBON 47 1/2W	
R208	1-216-202-00	CARBON(CHIP) 1. 5K 1/8W	
R211	1-216-224-00	CARBON(CHIP) 12K 1/4W	
R218	1-216-196-00	CARBON(CHIP) 820 1/8W	
R219	1-216-196-00	CARBON(CHIP) 820 1/8W	
R227 ⚠	1-213-039-11	FUSIBLE 1. 3 1W	
		⟨ TRANCE ⟩	
T101 ⚠	9-901-001-01	TRANSFORMER	
		⟨ THYRISTOR ⟩	
THY201	8-719-123-76	THYRISTOR 3P4J	

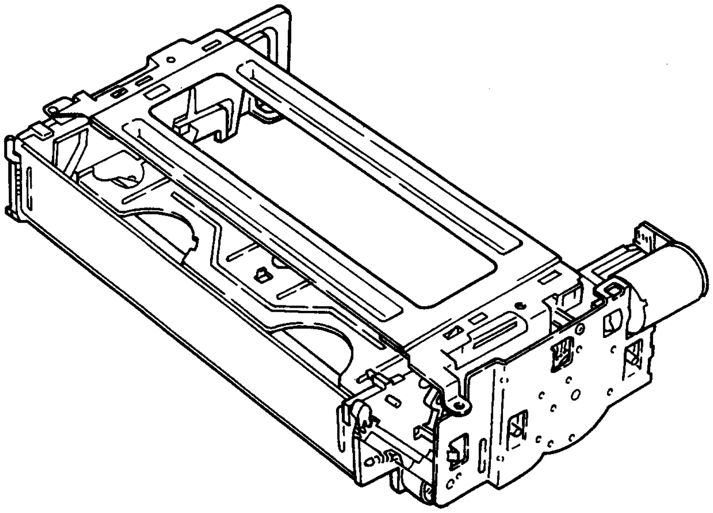
9-973-033-81

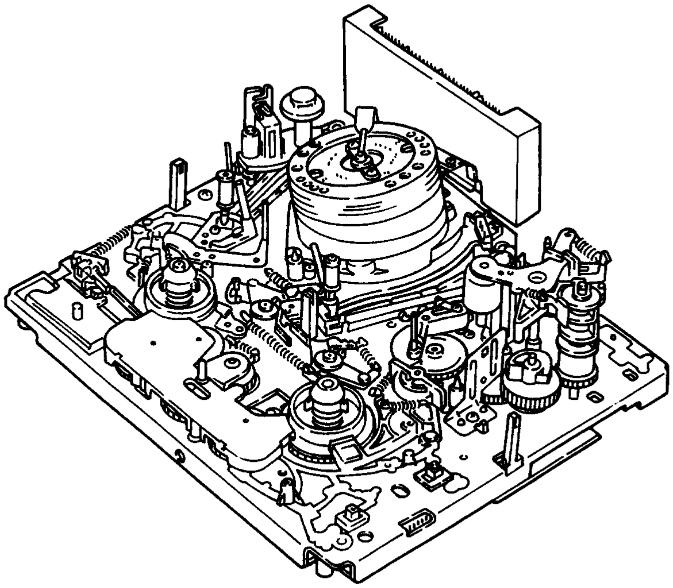
Sony Corporation
Home Video Group

English
91J1963-1
Printed in Japan
© 1991.10
Published by Customer Relations and Service Group

VHS MECHANICAL ADJUSTMENT MANUAL Ⅱ

- Please use in conjunction with the SERVICE MANUAL.
- This VHS MECHANICAL ADJUSTMENT MANUAL Ⅱ can be used for NTSC system and PAL system.





VHS VIDEO RECORDER

SONY®

MICROFILM

MC-Service

TABLE OF CONTENTS

Section *Title* *Page*

1. PREPARATIONS FOR CHECKS, ADJUSTMENTS AND REPLACEMENT OF THE DECK MECHANISM

1-1. Loading and unloading video cassettes with the power off 3
  1-1-1. Manual loading and unloading 3
  1-1-2. Loading and unloading using a separate power source 3
1-2. Threading and unthreading with the power off 3
  1-2-1. Manual threading and unthreading 3
  1-2-2. Threading and unthreading using a separate power source 3
1-3. To complete threading with the FL cassette controller removed 4

2. PERIODICAL INSPECTION AND REPLACEMENT

2-1. Cleaning the rotary head disc ass'y 5
2-2. Cleaning the tape transport system 5
2-3. Cleaning the drive system 5
2-4. Periodic Maintenance 6
2-5. Service Tools and Jigs 7

3. REPLACEMENT OF MAJOR COMPONENT PARTS OF THE DECK MECHANISM

3-1. FL mechanism 8
  3-1-1. FL door 8
  3-1-2. Erasure protection lever 8
  3-1-3. Gear cover ass'y 8
  3-1-4. Loading motor, worm gear (FL), worm wheel ..8 (FL), worm bearing 8
  3-1-5. Door OPEN/CLOSE arm 9
3-2. TS ass'y and guide roller ass'y No.2 9
3-3. ACE ass'y 10
3-4. Drum ass'y 10
3-5. Drum base ass'y 10
3-6. Pinch roller ass'y and elevator cam 11
3-7. Cam gear, press and transmission gear 11
3-8. RVS arm ass'y and RVS cam gear 12
3-9. Guide No.7 12
3-10. S-brake ass'y, T-brake ass'y 13
3-11. T-soft brake ass'y, REV brake arm 13
3-12. S-soft brake arm ass'y 13
3-13. S-guide and T-guide roller assy's 14
3-14. Reel lock release and REW gear 14
3-15. Tension regulator arm ass'y, tension regulator band ass'y 15
3-16. S take-up ass'y 15
3-17. S-reel ass'y 16
3-18. T-reel ass'y 16
3-19. Pendulum arm ass'y 16
3-20. Relay gear 17
3-21. Adjuster arm ass'y 17
3-22. CAP brake ass'y 17
3-23. Capstan motor 18
3-24. Rotary switch 18
3-25. RKB cam gear 19
3-26. Sub-chassis ass'y 19
3-27. Pendulum slide plate, pendulum arm 20
3-28. The limiter arm and limiter slide plate 20
3-29. Cam motor 20
3-30. Cam gear 20
3-31. Tension regulator arm, S take-up arm 21
3-32. Mode slide plate, RVS relay gear 21
3-33. Brake arm, brake slide plate 21
3-34. Right shuttle, right loading gear ass'y 22
3-35. Left shuttle ass'y, left loading gear ass'y 22
3-36. C-roller arm ass'y, C-roller release lever 23

4. ADJUSTMENT

4-1. Tape path adjustment
  4-1-1. Tension regulator position/tension adjustement 24
  4-1-2. Height adjustment of the guide roller No.2 25
  4-1-3. Height adjustment of guide roller No. 7 and the RVS arm 25
  4-1-4. Height adjustment of guide rollers No.3 and No.6 26
  4-1-5. ACE head ass'y adjustment (rough adjustment) 26
  4-1-6. ACE head assembly adjustment (precision adjustment) 27
  4-1-7. X-value adjustment 27
  4-1-8. Adjustments after replacing the drum (video head) 29
  4-1-9. Checking the tension and torque 31

1. PREPARATIONS FOR CHECKS, ADJUSTMENTS AND REPLACEMENT OF THE DECK MECHANISM

Note : Refer to "Replacement Method" in the Service Guide for instructions on replacing the cabinet and PC boards. DO not perform cassette loading or threading with the VCR positioned upside-down.

1-1. LOADING AND UNLOADING VIDEO CASSETTES WITH THE POWER OFF. (Fig. 1-1.)

1-1-1. Manual loading and unloading

1) Rotate the loading motor in the direction of arrow Ⓐ until loading is compleated.
(When unloading, rotate the loading motor in the direction of arrowⒷ.)

1-1-2. Loading and unloading using a separate power source.

1) Cassette loading is performed by applying approx. 10V (300 mA) to the power terminal of the loading motor using a stabilized DC power source.
(When unloading, apply the same voltage to the opposite polarity of the power terminal.)

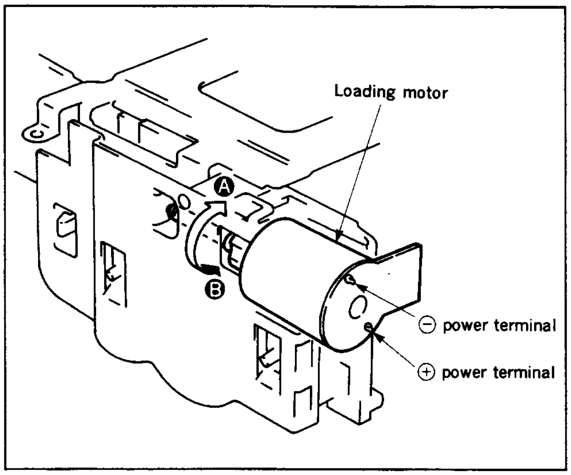


Fig. 1-1.

1-2. THREADING AND UNTHREADING WITH THE POWER OFF. (Fig. 1-2)

1-2-1. Manual threading and unthreading

1) Rotate the cam motor ❶ in the direction of arrowⒶuntil threading is completed.
(When unthreading, rotate the cam motor ❶ in the direction of arrowⒷ.)

1-2-2. Threading and unthreading using a separate power source.

1) Threading is performed by applying approx. 10V (500 mA) to the power terminal for the cam motor ❶ using a DC stabilized power source.
(When unthreading, apply the same voltage to the opposite polarity of the power terminal.)

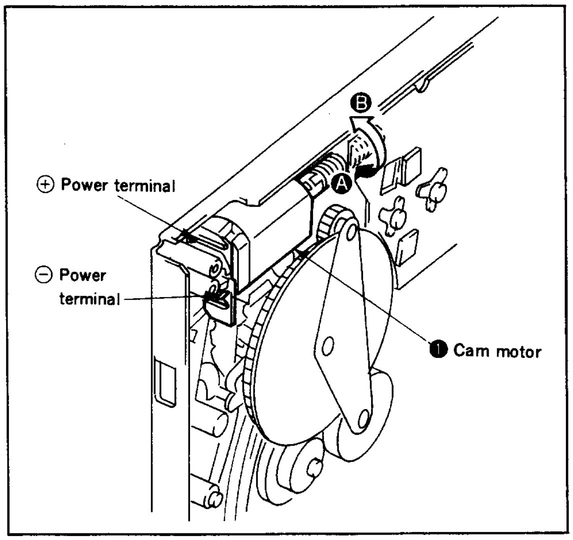


Fig. 1-2.

MC-Service

1-3. TO COMPLETE THREADING WITH THE FL CASSETTE CONTROLLER REMOVED. (Fig. 1-3)

1) Unplug the AC power cord from the power outlet.
2) Shield the supply, take-up sensors and the LED with black-masking tape.
3) Hold the cassatte down switch depressed by taping it, etc.
4) Plug the AC power cord into a power outlet.
   (At this time, the power should turn on and the tape rewinds for approx. 10 seconds, and the power turns off.)
5) Turn the power switch ON so that the mechanism is ready for loading.

Note : In this condition, the VTR is ready to operate in the different operating modes, including the record mode. At this time, rewind the tape for at least 15 seconds, then perform fast forward (FF).

Note : Following the above, be sure to reset the mechanism to the previous state as outlined below.

1) Remove the black-masking tape shielding the supply and take-up sensors, the LED and the tape holding cassette down switch.
2) Unplug the AC power cord from the power outlet to reset the system control microprocessor.

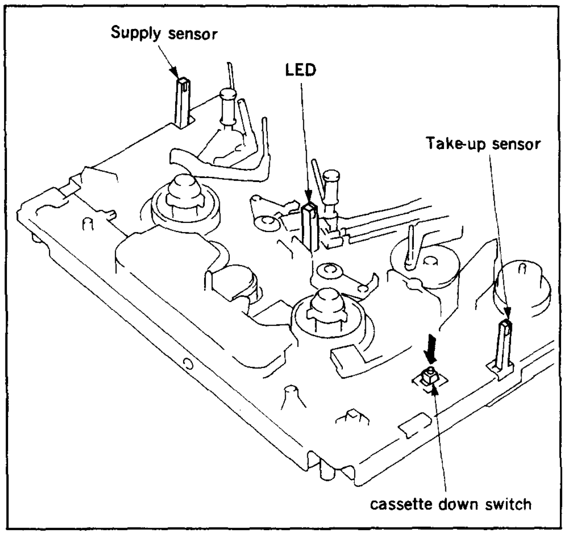


Fig. 1-3.

2. PERIODICAL INSPECTION AND REPLACEMENT

We recommend performing the following periodical inspections and maintenance in order to ensure that the unit operates in top condition and offers full performance, as well as realizes a long life of the mechanism and tapes.

* Be sure to perform the following maintenance procedures after the unit is repaired (regardless how long the unit has been used.)

2-1. CLEANING THE ROTARY HEAD DISC ASS'Y

1) Press Attach a deer skin cloth (Jig. Ref. No. J-7) soaked in cleaning solution (Jig. Ref. No. J-5) lightly to the rotary drum ass'y, then turn the rotary head disc slowly by hand to clean the surface of the rotary drum ass'y. (At this time, do not turn on the power motor to rotate the rotary head disc for cleaning.)
2) Also, do not wipe the drum ass'y by moving the deer skin cloth vertically across the head as this could damage of the tip of the head.

2-2. CLEANING THE TAPE TRANSPORT SYSTEM

1) Clean the tape transport surfaces (tape guide, a drum ass'y surfaces, capstan, pinch roller, etc.) with a deer skin cloth soaked in an approved in the recommended cleaning solution.

2-3. CLEANING THE DRIVE SYSTEM

1) Wipe the drive mechanism with an ordinary cloth soaked in an approved cleaning solution.

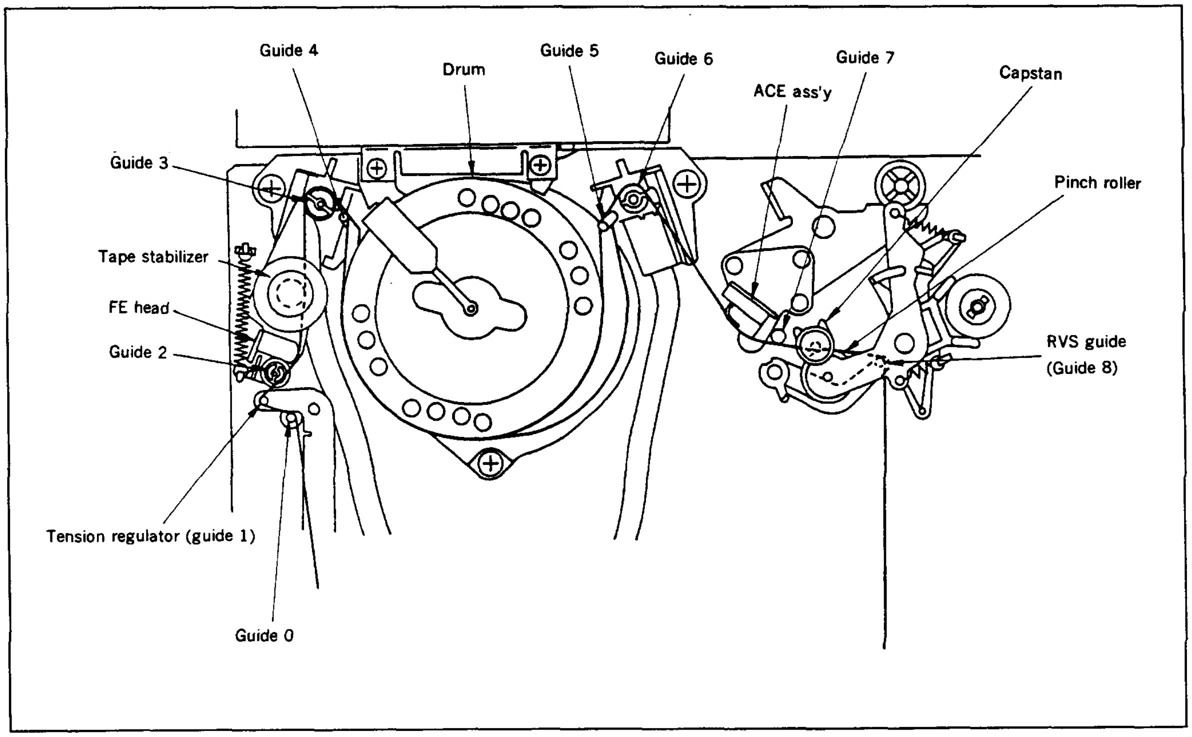

Guide 4
Drum
Guide 5
Guide 6
Guide 7
ACE ass'y
Capstan
Guide 3
Pinch roller
Tape stabilizer
FE head
Guide 2
RVS guide
(Guide 8)
Tension regulator (guide 1)
Guide 0

Fig. 2-1.

MC-Service

2-4. PERIODIC MAINTENANCE

		User Hours	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	Remarks
Location of Maintenance and Check		Replacement Part No.											
Perfor mance Check	Clean tape running surfaces	——	○	○	○	○	○	○	○	○	○	○	Always perform after repair.
	Clean, degauss ACE ass'y	——	○	○	○	○	○	○	○	○	○	○	
	Clean, degauss video disc ass'y	——	○	○	○	○	○	○	○	○	○	○	Head life is greatly affected by environment and method of use.
Driving System	Reel belt	3-736-013-01	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Always perform after repair.
Tape Running System	Abnormal noise	——	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Adjust or replace source of abnormal noise.
	Back tension measurement	——	–	☆	–	☆	–	☆	–	☆	–	☆	Check according to 4-1-1. Spec : 24 — 34g/cm (Measured with torque cassette)
	Brake system check	——	–	☆	–	☆	–	☆	–	☆	–	☆	
	REC/PB function check	——	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Always perform after repair.
	Forward torque measurement		☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Spec : 80 — 140 g•cm

○ Cleaning ☆ Check

Note : Refer to the above items for part replacement when performing an overhaul.

2-5. SERVICE TOOLS AND JIGS

Ref. No.	Description	Part No.	Printing on jig	Remarks
J-1	Master plane	H-7099-279-H		
J-2	Reel disc height jig	H-7099-038-H		
J-3	Torque gauge adapter	H-7099-035-H		
J-4	Torque gauge	H-7099-039-H		
J-5	0.93mm Allen wrench	H-7099-202-H		
J-6	NTSC torque cassette VHT-063S PAL torque cassette	J-6082-011-A J-6082-066-A		For rewind torque and back tension
	NTSC torque cassette VHT-404S PAL torque cassette	J-6082-012-A J-6082-067-A		For cue/review
J-7	NTSC alignment tape JVC-MH-1 PAL alignment tape JVC-MH-2	H-7099-046-H H-7099-052-H		
	NTSC Hi-Fi alignment tape PAL Hi-Fi alignment tape	H-7099-153-H H-7099-175-H		
J-8	Cleaning fluid	Y-2031-001-0	———	
J-9	Chamois cloth	2-034-697-00	———	Cleaning
J-10	Head degausser	Widely available	———	Video, audio head degaussing
J-11	Small adjustment mirror (with handle) Small adjustment mirror (mirror only)	J-6080-029-A J-6080-030-1	SL-5052	For tape path and tape running adjustment and check

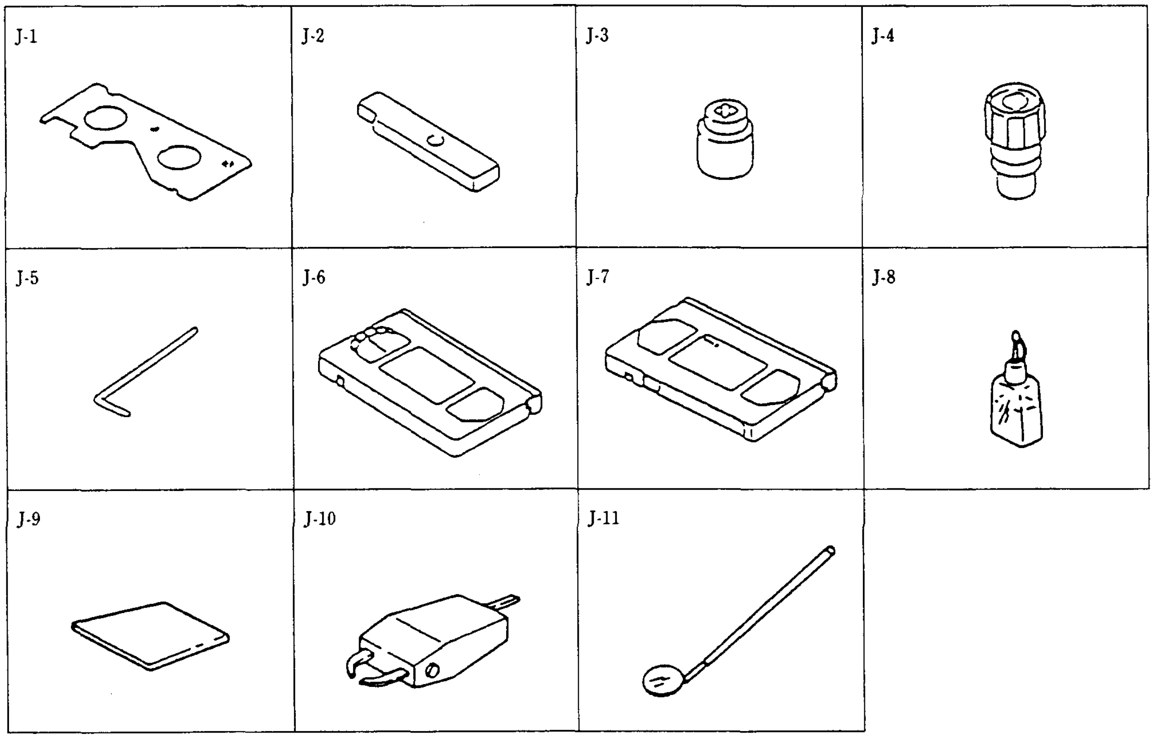


Fig. 2-2. Service tools and jigs

MC-Service

3. REPLACEMENT OF MAJOR COMPONENT PARTS OF THE DECK MECHANISM

Note: ○ Refer to "Replacement Method" in the Service Guide for replacing the cabinet and PC boards.

○ When mounting parts, reverse the replacement procedure while referring to "Precautions on Mounting Parts".

○ After grease coated parts such as gears are placed, re-grease the replaced part.

○ Do not touch the guides (taped surface) and bra shoe directly with your fingers or grease them, e

○ Gears must be mounted so that they mesh wi each other.

3-1. FL MECHANISM

3-1-1. FL door (Fig. 3-1.)

1) Press the claw ❶ in the direction of arrow Ⓐ, then remove the FL door ❷ in the direction of arrow Ⓑ.

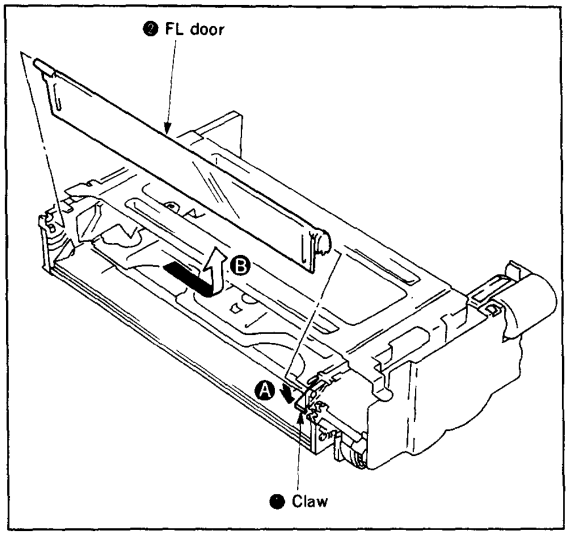

❷ FL door
Ⓑ
Ⓐ
❶ Claw

Fig. 3-1.

3-1-2. Erasure protection lever (Fig. 3-2)

1) Remove the spring ❶.
2) Disengage the claw ❷, then slide the erasure protection lever ❸ in the direction of arrow Ⓐ.
3) Disengage the erasure protection lever ❸ in the direction of arrow Ⓑ.

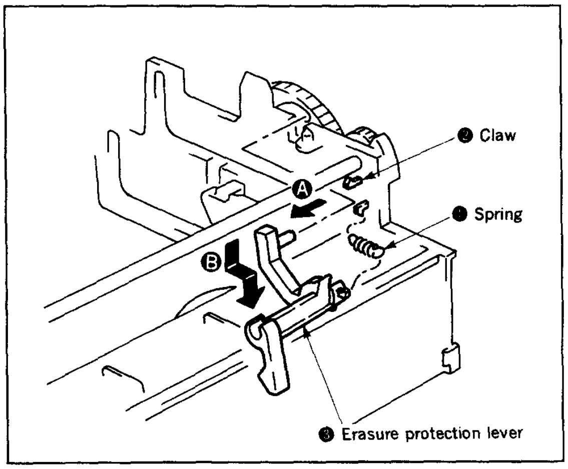

❷ Claw
Ⓐ
❶ Spring
Ⓑ
❸ Erasure protection lever

Fig. 3-2.

3-1-3. Gear cover ass'y (Fig. 3-3)

1) Disengage the four claws ❶, then remove the gear cov ass'y ❷.

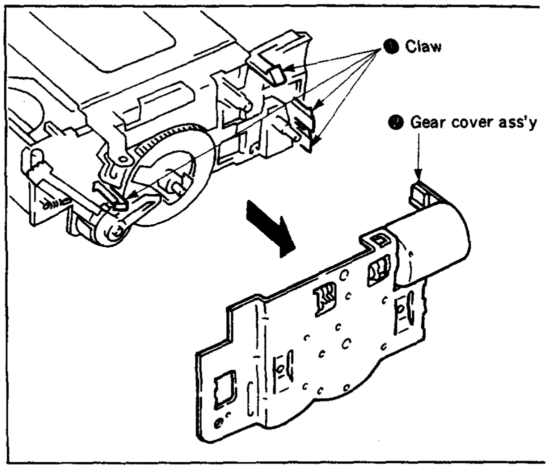

❶ Claw
❷ Gear cover ass'y

Fig. 3-3.

3-1-4. Loading motor, worm gear (FL), worm whe (FL), worm bearing (Fig. 3-4)

1) Remove washer 3 ❶, then pull out the worm wheel (F ❷.
2) Remove the two screws ❸, then remove the loadin motor ❹.
3) Remove the worm gear (FL) ❺ and worm bearing ❻.

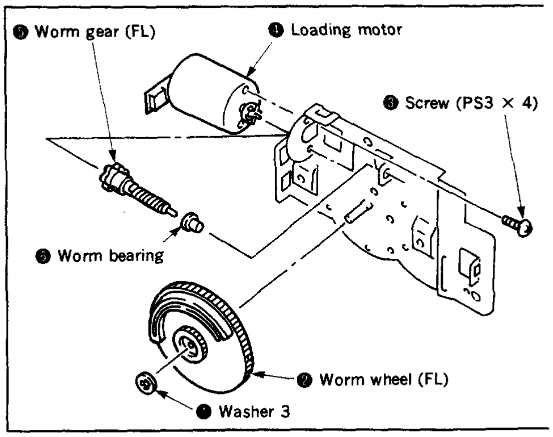

❺ Worm gear (FL)
❹ Loading motor
❸ Screw (PS3 × 4)
❻ Worm bearing
❷ Worm wheel (FL)
❶ Washer 3

Fig. 3-4.

3-1-5. Door OPEN/CLOSE arm (Fig. 3-5)

1) Remove the spring ❶.
2) Pull out the door OPEN/CLOSE arm ❷.

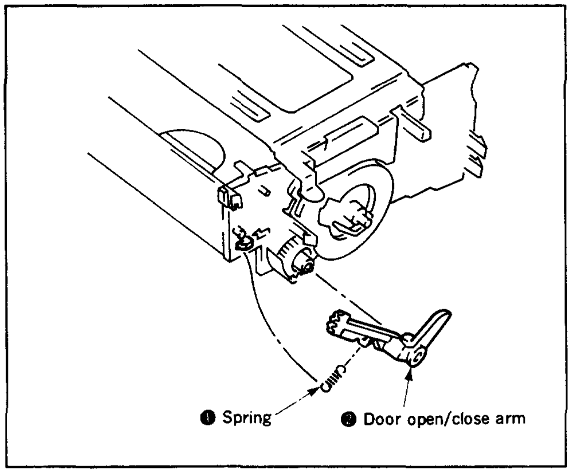

❶ Spring
❷ Door open/close arm

Fig. 3-5.

[Precautions on remounting] (Figs. 3-6 and 3-7.)

- ○ When mounting the gear cover ass'y, match up the two holes on the gear cover ass'y with the two holes on the worm wheel (FL) and then with the hole on the right drive arm ass'y.
- ○ Mesh the FL door and the door OPEN/CLOSE arm together as shown in Ⓐ section in the figure below.
- ○ The erasure protection lever shaft must fit into the groove on the left drive arm ass'y.

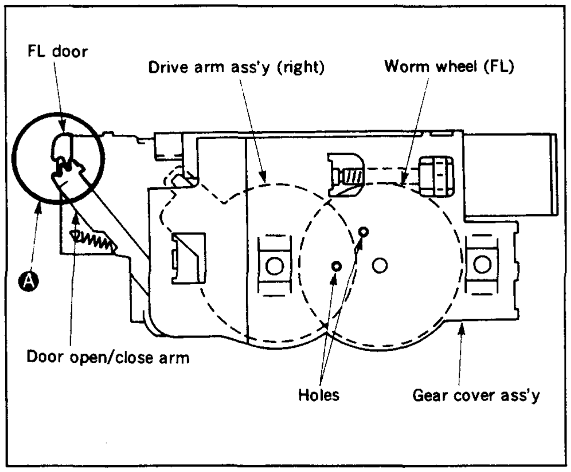

FL door
Drive arm ass'y (right)
Worm wheel (FL)
Ⓐ
Door open/close arm
Holes
Gear cover ass'y

Fig. 3-6.

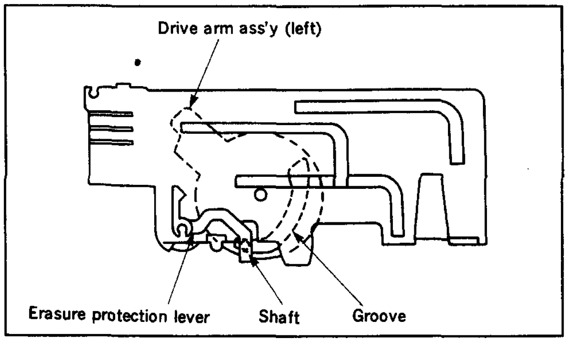

Drive arm ass'y (left)
Erasure protection lever
Shaft
Groove

Fig. 3-7.

3-2. TS ASS'Y AND GUIDE ROLLER ASS'Y No. 2 (Fig. 3-8)

1) Remove the spring ❶.
2) *Remove the TS ass'y ❷ in the direction of arrow Ⓐ.*
3) Turn guide roller ass'y No. 2 ❸ in the direction of arrow Ⓑ and pull it out.

[Precautions on remounting]

- ○ Clean the surface of guide roller No. 2 ❸ where the tape is attached.
- ○ Apply lubricant over the section shown in Figure A below.

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

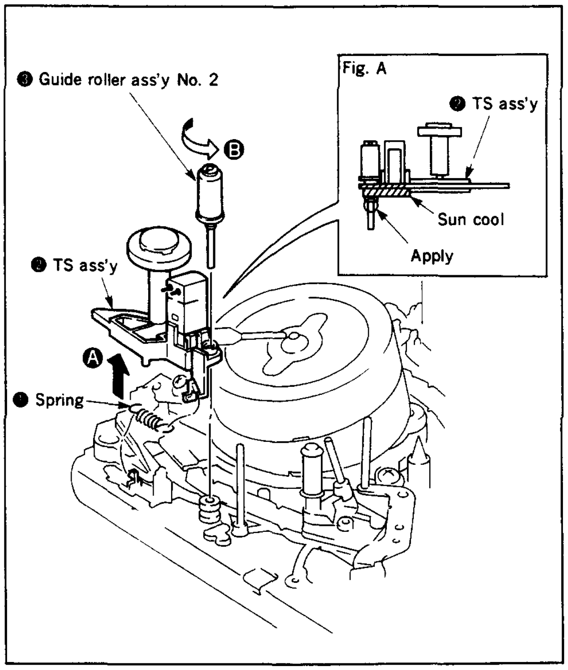

❸ Guide roller ass'y No. 2
Ⓑ
❷ TS ass'y
Ⓐ
❶ Spring
Fig. A
❷ TS ass'y
Sun cool
Apply

Fig. 3-8.

MC-Service

3-3. ACE ASS'Y (Fig. 3-9)

1) Slide the torsion coil spring ❶ in the direction of the arrow.
2) Remove the nylon nut N3 ❷, then pull out the ACE ass'y ❸.
3) Remove the ACE adjuster screw ❹.

[Precautions on remounting]

- ○ Clean the surface of the ACE ass'y ❸ where the tape is attached.
- ○ Hook both ends of the torsion coil spring ❶ to the ass'y as shown in Figure A below.
- ○ Adjust the ACE adjuster screw ❹ to the height shown in Figure A.

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

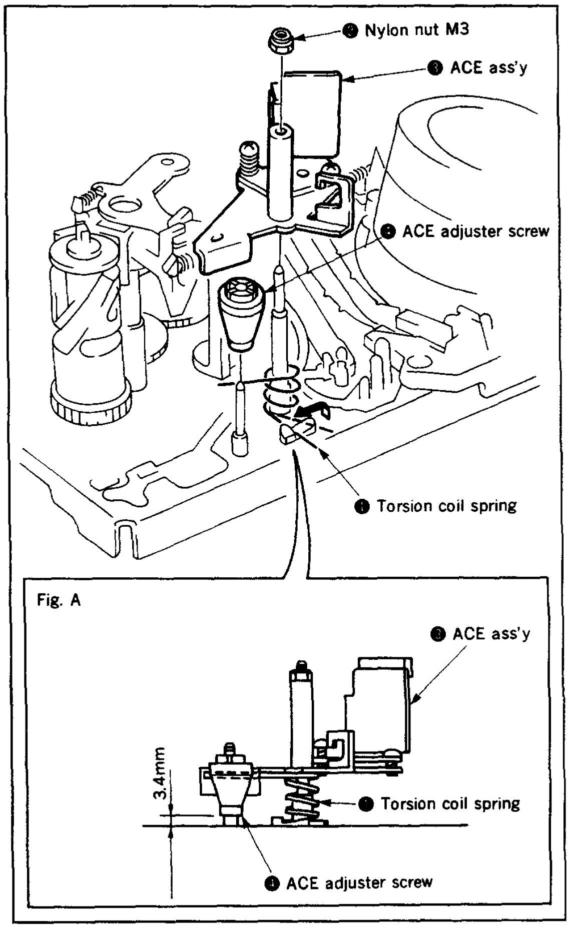

❷ Nylon nut M3
❸ ACE ass'y
❹ ACE adjuster screw
❶ Torsion coil spring
Fig. A
❸ ACE ass'y
3.4mm
❶ Torsion coil spring
❹ ACE adjuster screw

Fig. 3-9.

3-4. DRUM ASS'Y (Fig. 3-10)

1) Remove the three screws ❶, then remove the drum ass ❷.

[Precautions on remounting]

- ○ Do not touch the head tips ❸ and the ground plate directly with your fingers or tools.
- ○ Clean the surface of the drum ass'y ❷ where a tape attached.
- ○ The stopper ❺ must be attached at the point shown in t figure below.
- ○ Screws must be fastened with a 6kg•cm (±1kg•cm) scre fastening torque. (The screws can be mounted in a order.)

[Adjustment after replacement]

- ○ Perform tape path adjustments as described in 4-1.

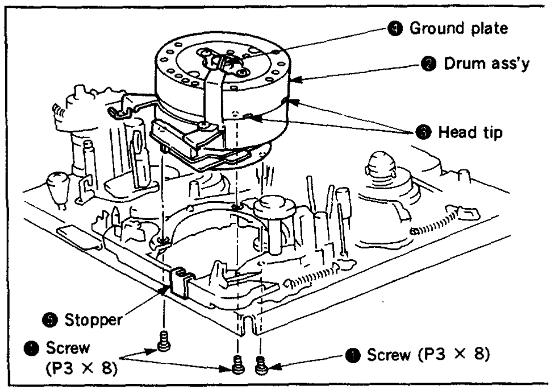

❹ Ground plate
❷ Drum ass'y
❸ Head tip
❺ Stopper
❶ Screw (P3 × 8)
❶ Screw (P3 × 8)

Fig. 3-10.

3-5. DRUM BASE ASS'Y (Fig. 3-11)

1) Remove the drum. (Refer to 3-4.)
2) Remove the three screws ❶, then remove the drum ba ass'y ❷.

[Precautions on remounting]

- ○ The spacer ❸ for the drum base must be mounted in i previous position as shown in the figure below. [Note that some units do not feature the spacer ❸.]
- ○ Fastening torque must be 10kg•cm (±1kg•cm)
- ○ The screws must be mounted in order of (a),(b) and (c).

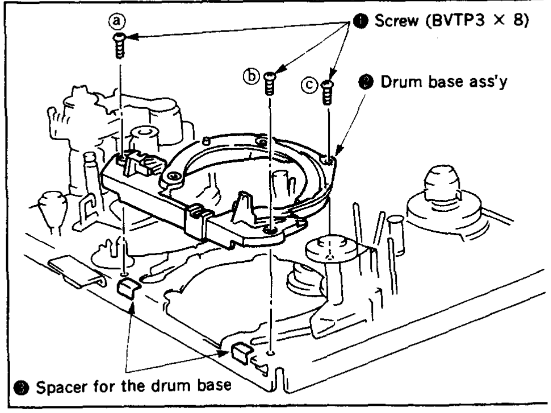

ⓐ
❶ Screw (BVTP3 × 8)
ⓑ
ⓒ
❷ Drum base ass'y
❸ Spacer for the drum base

Fig. 3-11.

3-6. PINCH ROLLER ASS'Y AND ELEVATOR CAM (Fig. 3-12)

1) Remove the two claws ❶, then pull out the stopper ❷.
2) Pull out the pinch roller ass'y ❸.
3) Pull out the elevator cam ❹.

[Precautions on remounting]

- ○ Clean the surface of the pinch roller ass'y ❸ where the tape is attached.
- ○ Match up the ▯ marks on the elevator cam ❹ and cam gear, press ❺.

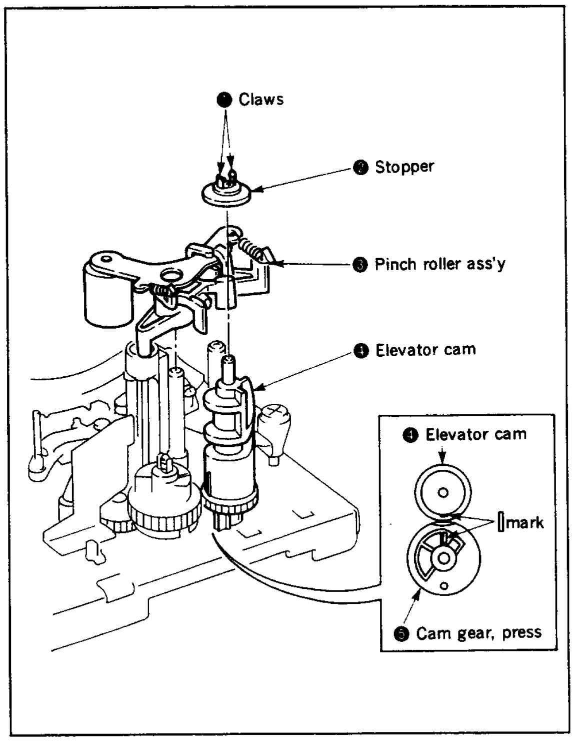

❶ Claws
❷ Stopper
❸ Pinch roller ass'y
❹ Elevator cam
❹ Elevator cam
▯mark
❺ Cam gear, press

Fig. 3-12.

3-7. CAM GEAR, PRESS AND TRANSMISSION GEAR (Fig. 3-13)

1) Remove the pinch roller ass'y. (Refer to 3-6.)
2) Remove the screw ❶, then remove the lid release plate ❷.
3) Remove the two claws ❸, then pull out the cam gear, press ❹.
4) Remove the washer 2 ❺, then pull out the transmission gear ❻.

[Precautions on remounting]

- ○ Check the top and bottom of the transmission gear ❻.
- ○ Match up the hole ❼ on the chassis with the hole ❼ on the cam gear, press ❹.
- ○ Match up the ▯ mark on the cam gear, press ❹ with the ▯ mark on the alleviator cam ❽.

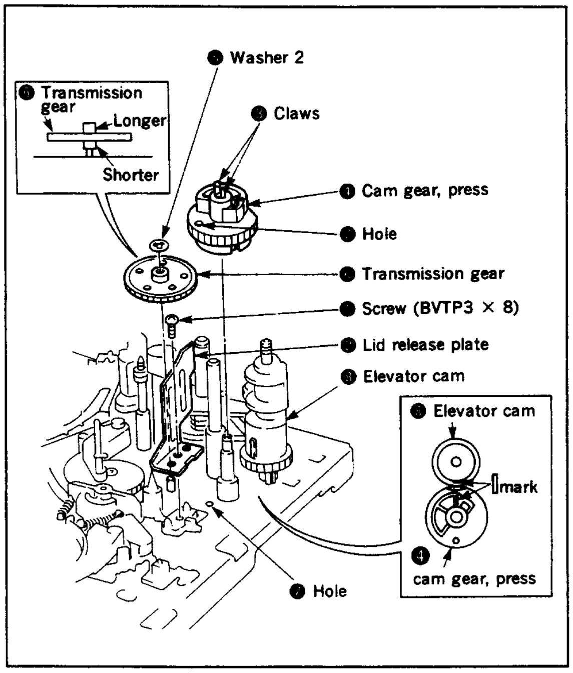

❺ Washer 2
❻ Transmission gear
Longer
Shorter
❸ Claws
❹ Cam gear, press
❼ Hole
❻ Transmission gear
❶ Screw (BVTP3 × 8)
❷ Lid release plate
❽ Elevator cam
❽ Elevator cam
▯mark
❹ cam gear, press
❼ Hole

Fig. 3-13.

MC-Service

3-8. RVS ARM ASS'Y AND RVS CAM GEAR (Fig. 3-14)

1) Remove the nylon nut M2 ❶ and plastic washer ❷.
2) Disengage the claw ❸, then pull out the RVS arm ass'y ❹.
3) Remove washer 2 ❺, then pull out the RVS cam gear ❻.

[Precautions on remounting]

○ The holes ❼ in the chassis and in the RVS cam gear ❻ must match up. Also, make sure to match up the holes ❾ on the cam gear, press ❽ and the chassis.

○ The spring ❿ must be hooked as shown in Fig. A below.

○ Clean the surface of the RVS arm ass'y ❹ where a tape is attached.

○ Apply 1/2 drop of lubricant to the shaft ⓫.

[Adjustment after replacement]

○ Perform tape path adjustments as described in 4-1.

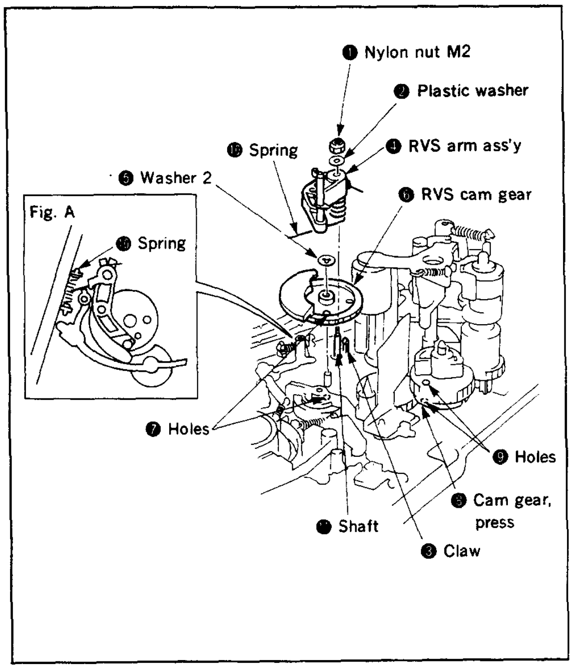

❶ Nylon nut M2
❷ Plastic washer
❿ Spring
❹ RVS arm ass'y
❺ Washer 2
❻ RVS cam gear
Fig. A
❿ Spring
❼ Holes
❾ Holes
❽ Cam gear, press
⓫ Shaft
❸ Claw

Fig. 3-14.

3-9. GUIDE No. 7 (Fig. 3-15)

1) Remove the nylon nut M3 ❶.
2) Pull out guide flange No. 7 ❷, guide sleeve No. 7 guide flange No. 7 ❹ and compression coil spring ❺ the given order.

[Precautions on remounting]

○ Clean the surface of the guide sleeve No. 7 ❸ where t tape is attached.

○ Adjust the height of guide No. 7 to the height shown Fig. A below.

[Adjustment after replacement]

○ Perform tape path adjustments as described in 4-1.

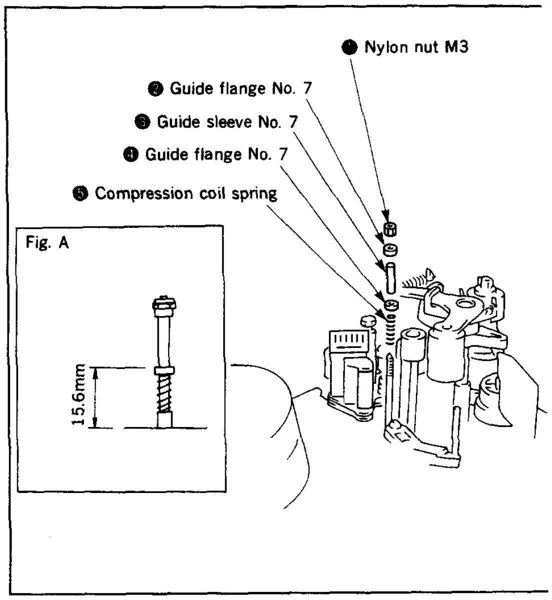

❶ Nylon nut M3
❷ Guide flange No. 7
❸ Guide sleeve No. 7
❹ Guide flange No. 7
❺ Compression coil spring
Fig. A
15.6mm

Fig. 3-15.

3-10. S-BRAKE ASS'Y, T-BRAKE ASS'Y (Fig. 3-16)

1) Remove the spring ❶.
2) Disengage the claw ❷, then pull out the S-brake ass'y ❸.
3) Disengage the claw ❹, then pull out the T-brake ass'y ❺.

[Precautions on remounting]

- ○ Do not touch the brake shoes for the respective S-brake ❸ and T-brake ❺ assy's directly with your fingers.
- ○ Do not hold on to the S-brake ❸ and T-brake ❺ assy's by the arms when inserting them.
- ○ The T-brake ass'y ❺ must be positioned above the S-brake ass'y ❸ as shown in Fig. A below.

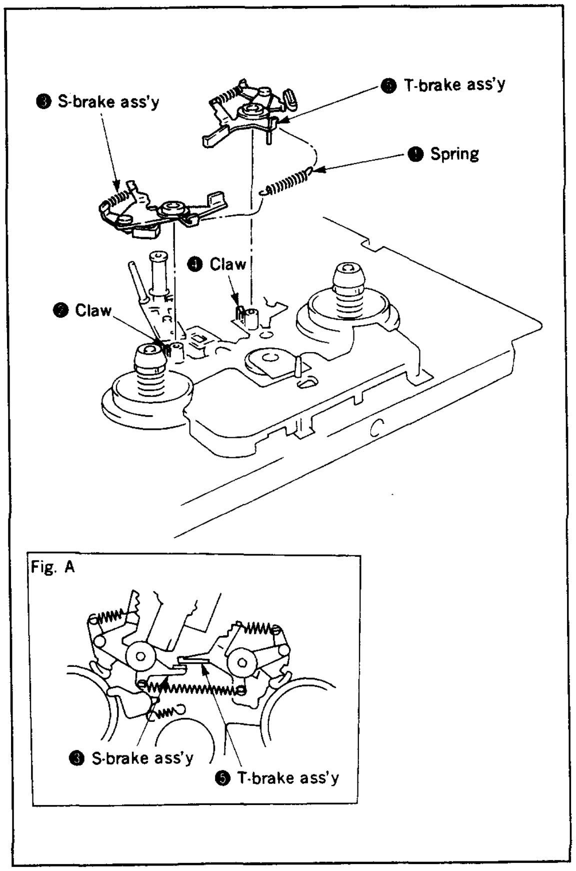

❸ S-brake ass'y
❺ T-brake ass'y
❶ Spring
❹ Claw
❷ Claw
Fig. A
❸ S-brake ass'y
❺ T-brake ass'y

Fig. 3-16.

3-11. T-SOFT BRAKE ASS'Y REV BRAKE ARM (Fig. 3-17)

1) Remove the end of the spring ❶ from the REV brake arm ❷.
2) Remove the end of the spring ❸ from the chassis.
3) Disengage the claw ❹, then pull out the T-soft brake ass'y ❺.
4) Disengage the claw ❻, then pull out the REV brake arm ❷.

[Precautions on remounting]

- ○ Do not touch the brake shoe of the T-soft brake ass'y ❺ directly with your fingers.

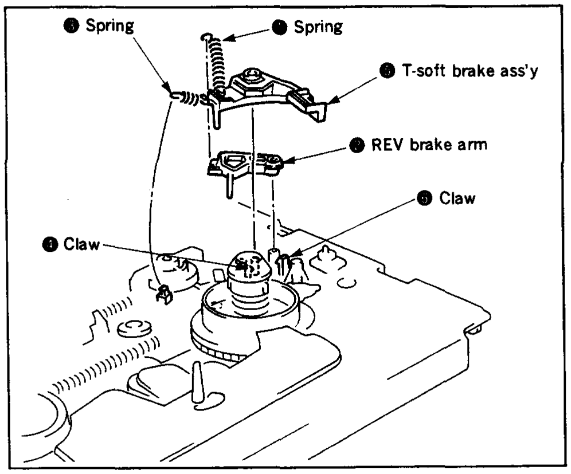

❸ Spring
❶ Spring
❺ T-soft brake ass'y
❷ REV brake arm
❻ Claw
❹ Claw

Fig. 3-17.

3-12. S-SOFT BRAKE ARM ASS'Y (Fig. 3-18)

1) Unhook the end of the spring ❶ from the chassis.
2) Disengage the claw ❷, then pull out the S-soft brake arm ass'y ❸.

[Precautions on remounting]

- ○ The S-soft brake arm ass'y must not clamp down the tension regulator band ass'y ❹ nor be positioned below the tension regulator band ❹.

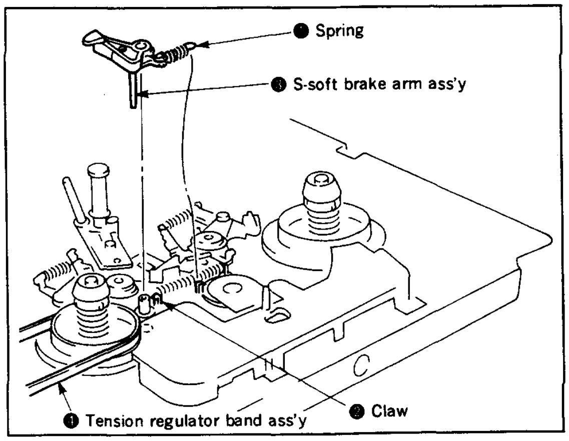

❶ Spring
❸ S-soft brake arm ass'y
❹ Tension regulator band ass'y
❷ Claw

Fig. 3-18.

MC-Service

3-13. S-GUIDE AND T-GUIDE ROLLER ASSY'S (Fig. 3-19)

1) Loosen the setscrew ❶, then remove the S-guide roller ass'y ❷ by turning it in the direction of the arrow Ⓐ.
2) Loosen the setscrew ❸, then remove the T-guide roller ass'y ❹ by turning it in the direction of arrow Ⓑ.

[Precautions on remounting]

○ Clean the surfaces of the S-guide roller ❷ and T-guide roller assy's ❹ where a tape is attached.

[Adjustment after replacement]

○ Perform tape path adjustments as described in 4-1.

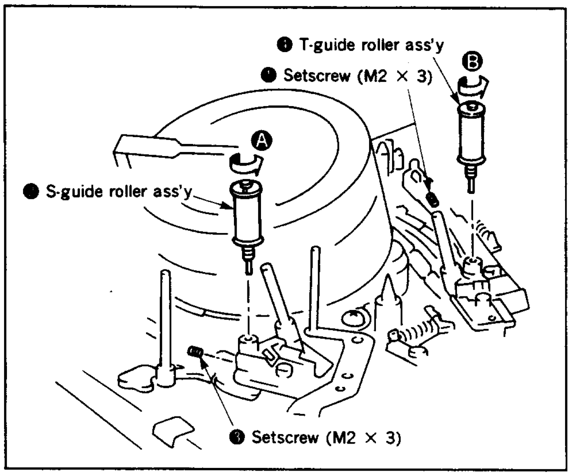

❹ T-guide roller ass'y
Ⓑ
❶ Setscrew (M2 × 3)
Ⓐ
❷ S-guide roller ass'y
❸ Setscrew (M2 × 3)

Fig. 3-19.

3-14. REEL LOCK RELEASE AND REW GEAR (Fig. 3-20)

1) Disengage the two claws ❶, then remove the reel lo release ❷ along with the spring ❸ (while the spring still attached).
2) Next, pull out the REW gear ❹ with the spring beari ❺ still attached).

[Precautions on remounting]

○ Make sure that the small thrust bearing ❻ remai attached.

○ Make sure that the two claws ❶ lock the real lock relea ❷ in place.

○ Apply 1/2 drop of lubricant to the shaft ❼.

○ Make sure that the spring ❸ adheres to the reel lo release ❷ and that it fits inside the rib of the REW ge ❹.

○ Mount the REW gear ❹ by meshing it with gear ❽.

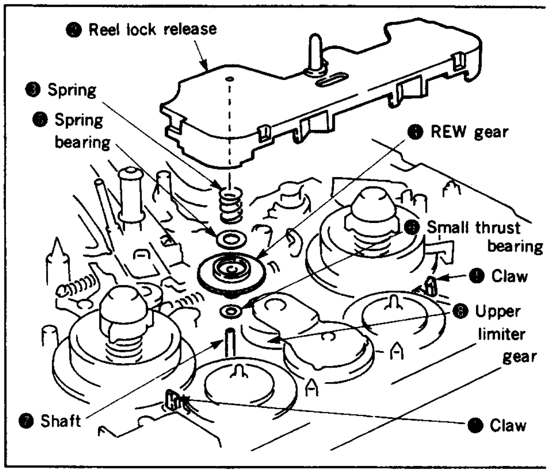

❷ Reel lock release
❸ Spring
❺ Spring bearing
❹ REW gear
❻ Small thrust bearing
❶ Claw
❽ Upper limiter gear
❼ Shaft
❶ Claw

Fig. 3-20.

3-15. TENSION REGULATOR ARM ASS'Y, TENSION REGULATOR BAND ASS'Y (Fig. 3-21)

1) Remove the reel lock release ass'y. (Refer to Fig. 3-14.)
2) Disengage the three claws marked ❶ and the claw marked ❷, then remove the tension regulator band ass'y ❸.
3) Unhook the end of the spring ❹ from the chassis.
4) Disengage the claw ❺, then pull out the tension regulator arm ass'y ❻.

[Precautions on remounting]

- ○ Roll up the tension regulator band ❸ on the S-reel by turning the S-soft brake arm ass'y ❼ in the direction of the arrow.
- ○ Hook the spring ❹ at the center of the spring hook ❽.
- ○ Do not touch the brake shoe of the tension regulator band ass'y ❸ directly with your fingers.
- ○ Mount the tension regulator arm ass'y ❻ at the position shown in Fig. A below.

[Adjustment after replacement]

- ○ Check the back tension. (Refer to 4-1-1.)
- ○ Perform tape path adjustments as described in 4-1.

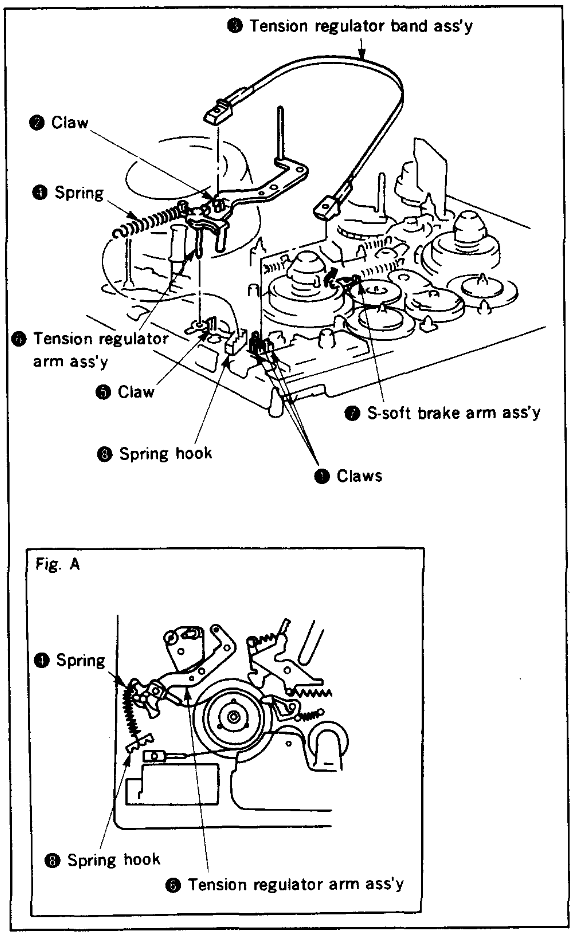

❸ Tension regulator band ass'y
❷ Claw
❹ Spring
❻ Tension regulator arm ass'y
❺ Claw
❼ S-soft brake arm ass'y
❽ Spring hook
❶ Claws
Fig. A
❹ Spring
❽ Spring hook
❻ Tension regulator arm ass'y

Fig. 3-21.

3-16. S TAKE-UP ASS'Y (Fig. 3-22)

1) Remove the tension regulator arm ass'y and the tension regulator band ass'y. (Refer to 3-15.)
2) Unhook the end of the spring ❶ from the S take-up arm ❷.
3) Disengage the two claws ❸, then remove the S take-up ass'y ❹.

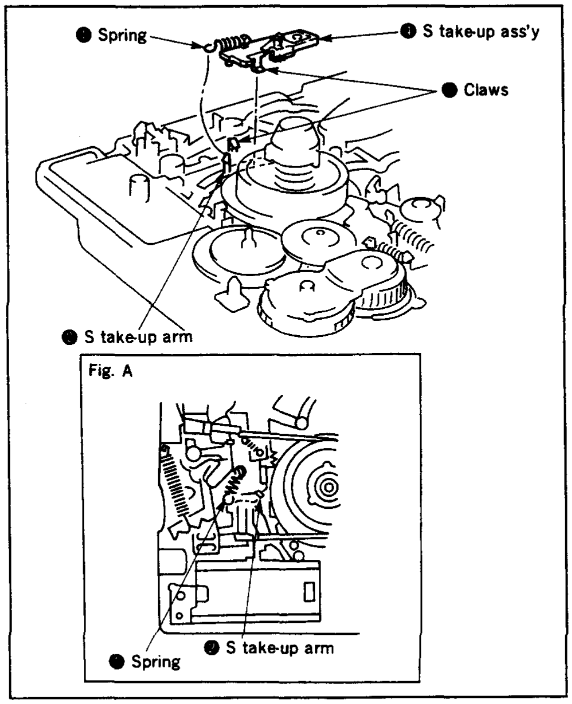

❶ Spring
❹ S take-up ass'y
❸ Claws
❷ S take-up arm
Fig. A
❶ Spring
❷ S take-up arm

Fig. 3-22.

MC-Service

3-17. S-REEL ASS'Y (Fig. 3-23)

1) Remove the S-soft brake arm ass'y. (Refer to 3-12.)
2) Remove the reel lock release. (Refer to 3-14.)
3) Remove the tension regulator band ass'y. (Refer to 3- 15.)
4) Turn the S-brake ass'y ❶ in the direction of the arrow.
5) Pull out the S-reel ass'y ❷.

[Precautions on remounting]

- ○ At least one reel stand thrust bearing ❸ must be attached (but not more than two).
- ○ Do not touch the outer edge of the S-reel ass'y ❷ directly with your fingers.
- ○ Apply 1/2 drop of lubricant over the shaft ❹.
- ○ Mount the S-reel ass'y ❷ while meshing it with the relay gear ❺.

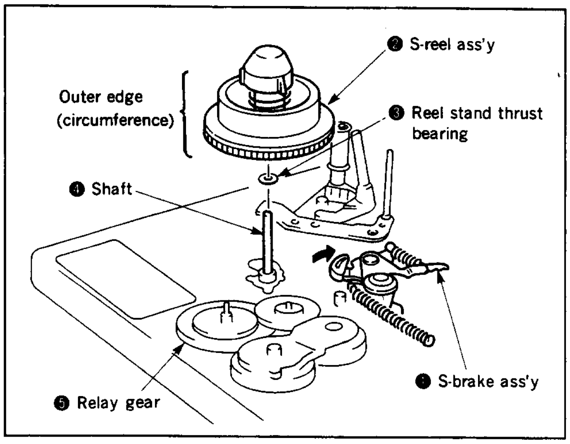

❷ S-reel ass'y
Outer edge (circumference)
❸ Reel stand thrust bearing
❹ Shaft
❶ S-brake ass'y
❺ Relay gear

Fig. 3-23.

3-18. T-REEL ASS'Y (Fig. 3-24)

1) Remove the T-soft brake ass'y. (Refer to 3-11.)
2) Remove the reel lock release ass'y. (Refer to 3-14.)
3) Turn the T-brake ass'y ❶ in the direction of the arrow.
4) Pull out the T-reel ass'y ❷.

[Precautions on remounting]

- ○ At least one reel stand thrust bearing ❸ must be attached (but not more than two).
- ○ Do not touch the outer edge of the T-reel ass'y ❷ directly with your fingers.
- ○ Apply 1/2 drop of lubricant on the shaft ❹.
- ○ Mount the T-reel ass'y ❷ while meshing it with the relay gear ❺.

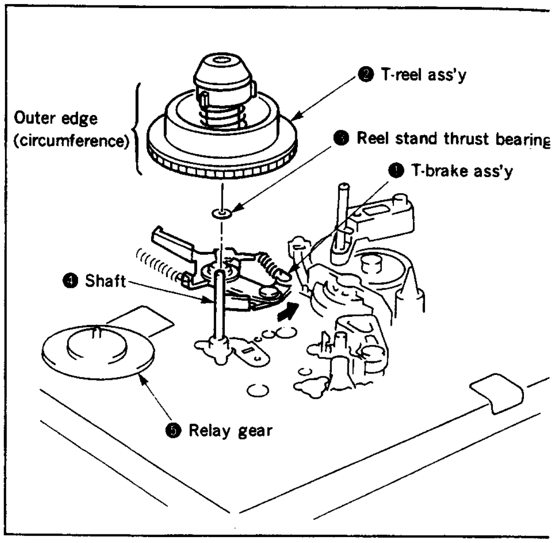

❷ T-reel ass'y
Outer edge (circumference)
❸ Reel stand thrust bearing
❶ T-brake ass'y
❹ Shaft
❺ Relay gear

Fig. 3-24.

3-19. PENDULUM ARM ASS'Y (Fig. 3-25)

1) Remove the reel lock release ass'y. (Refer to 3-14.)
2) Remove the washer 2 ❶, then pull out the pendulum ar ass'y ❷.

[Precautions on remounting]

- ○ Fit the boss on the pendulum cap ❸ into the gap in tl pendulum slide plate ❹.
- ○ The plastic slider ❺ must be attzched.
- ○ Apply 1/2 drop of lubricant on the shaft ❻.
- ○ Mount the pendulum arm ass'y ❷ by meshing it with tl upper limiter gear ❼.

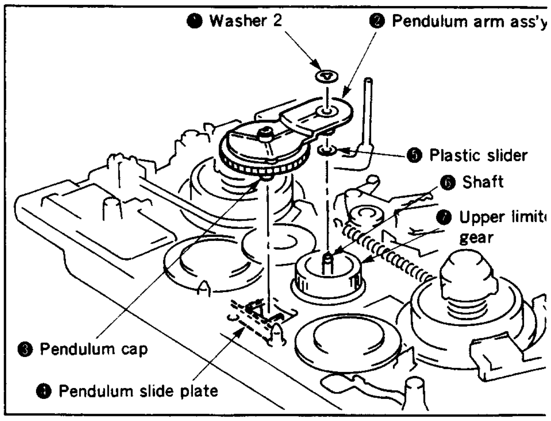

❶ Washer 2
❷ Pendulum arm ass'y
❺ Plastic slider
❻ Shaft
❼ Upper limit gear
❸ Pendulum cap
❹ Pendulum slide plate

Fig. 3-25.

3-20. RELAY GEAR (Fig. 3-26)

1) Remove the reel lock release and REW gear. (Refer to 3-14.)
2) Remove the S-reel ass'y. (Refer to 3-17.)
3) Remove the T-reel ass'y. (Refer to 3-18).
4) Pull out the two relay gears ❶.

[Precautions on remounting]

○ The relay gears ❶ must rotate smoothly after remounting.

○ Apply 1/2 drop of lubricant to the respective shafts ❷.

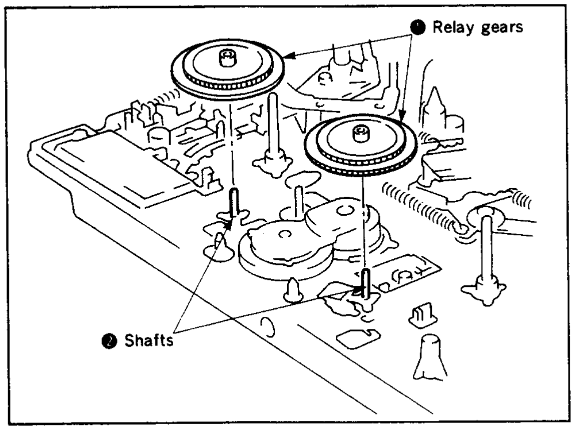

❶ Relay gears
❷ Shafts

Fig. 3-26.

3-21. ADJUSTER ARM ASS'Y (Fig. 3-27)

1) Remove screw ❶.
2) Remove washer ❻.
3) Remove the end of the spring ❷ hooked to the chassis.
4) Remove the end of the timing belt ❸ from the capstan motor arm ass'y.
5) Disengage the claw ❹, then remove the adjuster arm ass'y.

[Precautions on remounting]

○ First mount the adjuster arm ass'y ❺, timing belt ❸ and spring ❷, then attach the washer ❻ and fasten the screw ❶.

○ The screw fastening torque must be within 5kg•cm (±1kg•cm).

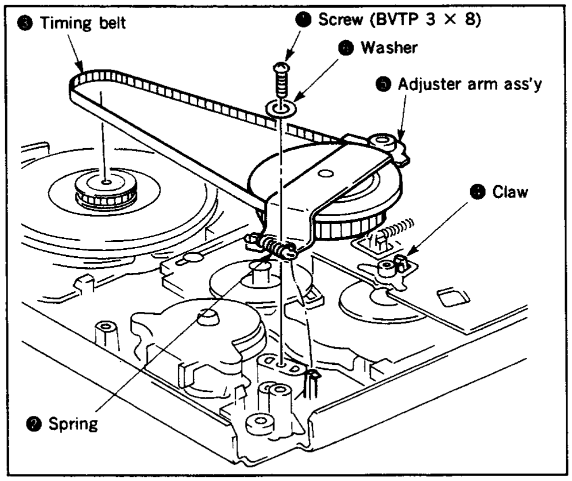

❸ Timing belt
❶ Screw (BVTP 3 × 8)
❻ Washer
❺ Adjuster arm ass'y
❹ Claw
❷ Spring

Fig. 3-27.

3-22. CAP BRAKE ASS'Y (Fig. 3-28)

1) Loosen the screw ❶, then push the timing belt ❷ in the direction of the arrow.
2) Unhook the end of the spring ❸ from the chassis.
3) Disengage claw ❹, then pull out CAP brake ass'y ❺.

[Precautions on remounting]

○ Do not touch the brake shoe of the CAP brake ass'y ❺ directly with your fingers.

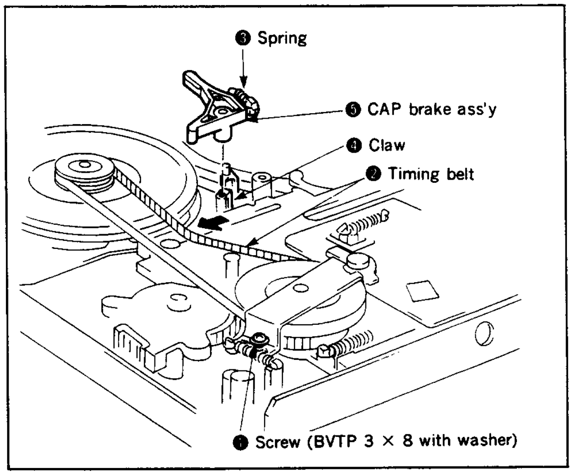

❸ Spring
❺ CAP brake ass'y
❹ Claw
❷ Timing belt
❶ Screw (BVTP 3 × 8 with washer)

Fig. 3-28.

MC-Service

3-23. CAPSTAN MOTOR (Fig. 3-29)

1) Turn the ACE ass'y ❶ in the direction of arrow Ⓐ as shown in Fig. A below, then remove three screws ❷.
2) Remove screw ❸, then remove the rotor clamp ❹.
3) Turn the CAP brake ass'y ❺ in the direction of arrow Ⓑ, then pull out the capstan motor ❻.

[Precautions on remounting]

○ Clean the section of the capstan motor ❻ where the tape is attached.

○ Do not touch the brake shoe of the CAP brake ass'y ❺ directly with your fingers.

○ Of the three screws ❷, first fasten screw A temporarily, then fasten screws B and C firmly, followed by screw A.

○ The screw fastening torque must be within 3kg•cm ± 1kg•cm.

[Adjustments after mounting]

○ Perform tape path adjustments as described in 4-1.

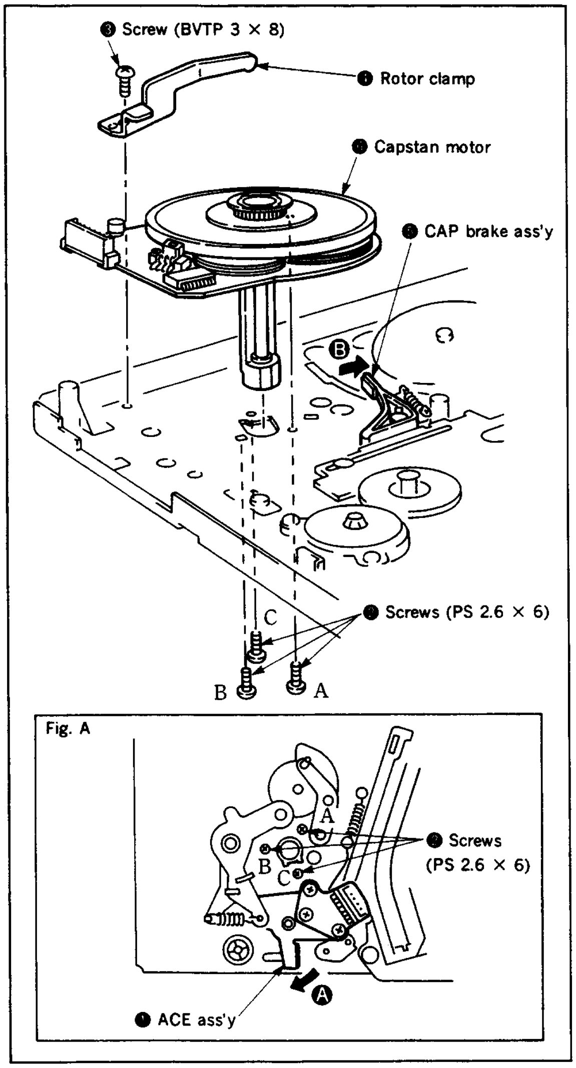

❸ Screw (BVTP 3 × 8)
❹ Rotor clamp
❻ Capstan motor
❺ CAP brake ass'y
Ⓑ
❷ Screws (PS 2.6 × 6)
C
B
A
Fig. A
A
B
C
❷ Screws (PS 2.6 × 6)
❶ ACE ass'y
Ⓐ

Fig. 3-29.

3-24. ROTARY SWITCH (Fig. 3-30)

1) Remove the adjuster arm ass'y. (Refer to 3-21.)
2) Remove the screws ❶ and ❷, then pull out the rot: switch ❸.

[Precautions on remounting]

○ Match up the ● mark on the rotary switch ❸ with the mark on the RKB cam gear ❹ as shown in Fig. A.

○ Match up holes ❻ on the pendulum arm ❺ and the chas

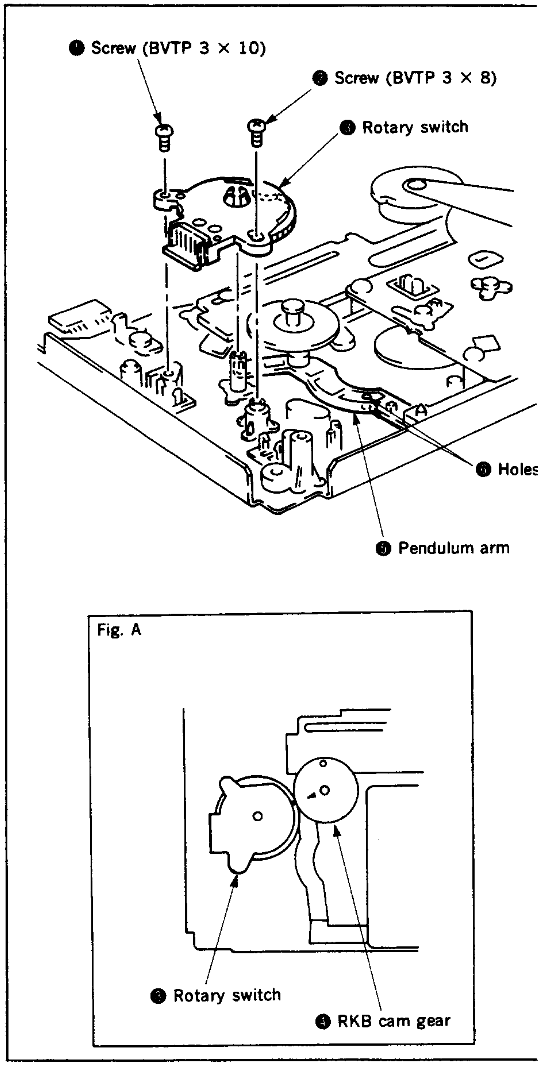

❶ Screw (BVTP 3 × 10)
❷ Screw (BVTP 3 × 8)
❸ Rotary switch
A
❻ Holes
❺ Pendulum arm
Fig. A
❸ Rotary switch
❹ RKB cam gear

Fig. 3-30.

3-25. RKB CAM GEAR (Fig. 3-31)

1) Remove the adjuster arm ass'y. (Refer to 3-22.)
2) Remove washer 2 ❶, then pull out the RKB cam gear ❷.

[Precautions on remounting]

- ○ When the limiter arm ❸ is pushed in the direction of the arrow, the pin must fit into the notch on the RKB cam gear ❷.
- ○ The ■ mark on rotary switch ❺ must match up with the ◀ mark on the RKB cam gear ❷ as shown in Fig. A.
- ○ Apply 1/2 drop of lubricant to shaft ❻.
- ○ Match up the holes ❹ on the RKB cam gear ❷ and the mode slide plate.

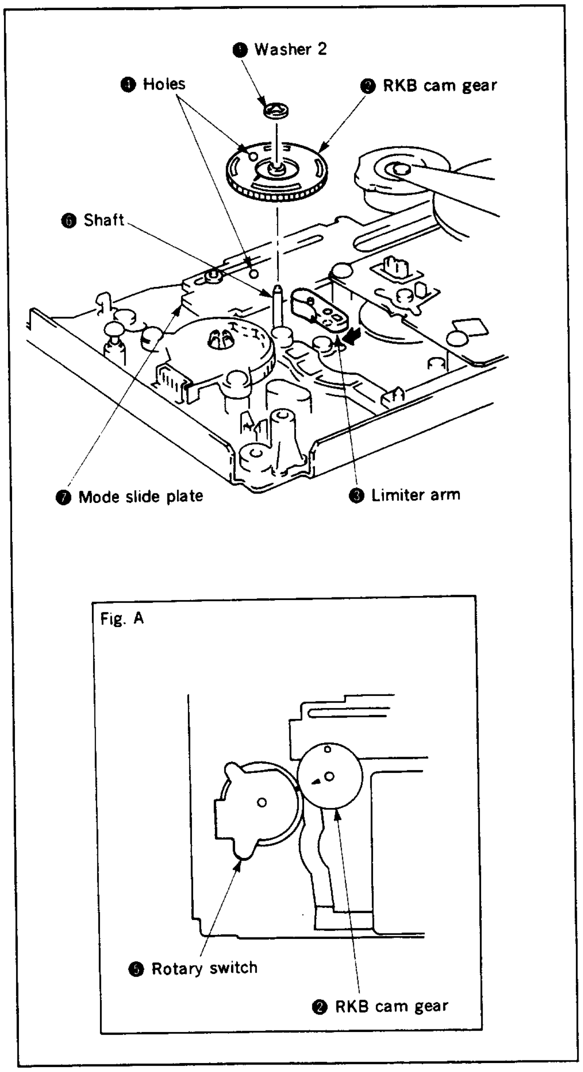

❶ Washer 2
❹ Holes
❷ RKB cam gear
❻ Shaft
❼ Mode slide plate
❸ Limiter arm
Fig. A
❺ Rotary switch
❷ RKB cam gear

Fig. 3-31.

3-26. SUB-CHASSIS ASS'Y (Fig. 3-32)

1) Remove the reel lock release arm and REW gear. (Refer to 3-15.)
2) Remove the pendulum arm ass'y. (Refer to 3-19.)
3) Remove the adjuster arm ass'y. (Refer to 3-22.)
4) Remove the three screws ❶, then remove sub-chassis ass'y ❷.

[Precautions on remounting]

- ○ The switching arm ❸ must be switched in the direction of the arrow.
- ○ The screws must be fastened in order of a, b and c.
- ○ Mount the sub-chassis carefully so as not to damage the gear.
- ○ The corner edge of the lug terminal ❹ must fit into the gap between the chassis ass'y ❷ and mechanism chassis.

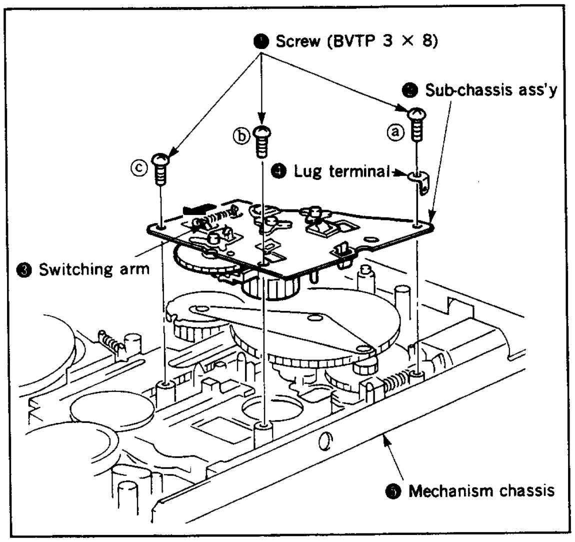

❶ Screw (BVTP 3 × 8)
❷ Sub-chassis ass'y
ⓐ
ⓑ
ⓒ
❹ Lug terminal
❸ Switching arm
❺ Mechanism chassis

Fig. 3-32.

MC-Service

3-27. PENDULUM SLIDE PLATE, PENDULUM ARM (Fig. 3-33)

1) Remove the rotary switch. (Refer to 3-24.)
2) Remove the RKB cam gear. (Refer to 3-25.)
3) Remove the sub-chassis ass'y. (Refer to 3-26.)
4) Disengage the two claws ❶, then pull out the pendulum slide plate ❷.
5) Unhook the spring ❸.
6) Disengage the claw ❹, then pull out pendulum arm ❺.

[Precautions on remounting]

○ The shaft ❻ must fit into hole ❼.

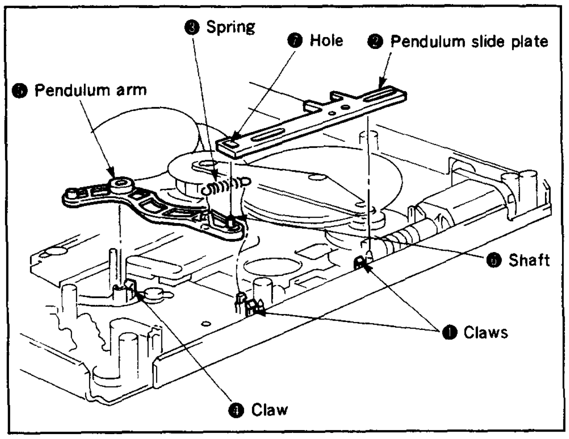

❸ Spring
❼ Hole
❷ Pendulum slide plate
❺ Pendulum arm
❻ Shaft
❶ Claws
❹ Claw

Fig. 3-33.

3-28. THE LIMITER ARM AND LIMITER SLIDE PLATE (Fig, 3-24)

1) Remove the RKB cam gear. (Refer to 3-25.)
2) Remove the sub-chassis. (Refer to Fig. 3-26.)
3) Disengage the claw ❶, then pull out the limiter arm ❷.
4) Disengage the two claws ❸, then pull out the limiter slide plate ❹.

[Precautions on remounting]

○ The shaft ❺ must fit into the hole ❻.

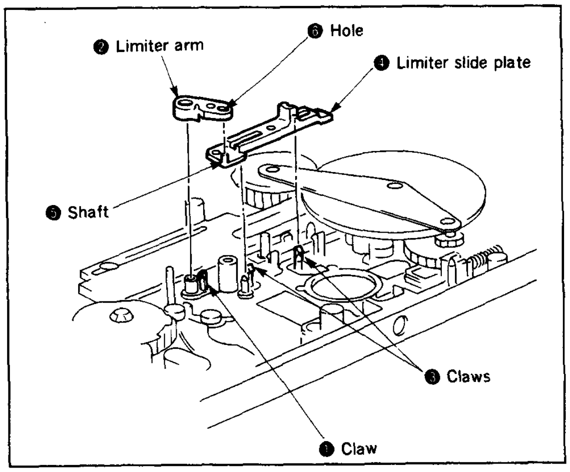

❻ Hole
❷ Limiter arm
❹ Limiter slide plate
❺ Shaft
❸ Claws
❶ Claw

Fig. 3-34.

3-29. CAM MOTOR (Fig. 3-35)

1) Remove the sub- chassis ass'y. (Refer to 3-26.)
2) Disengage the six claws ❶, then remove the cam mc ❷ and worm gear ❸.

[Precautions on remounting]

○ Check the meshing of cam motor ❷ and worm gear

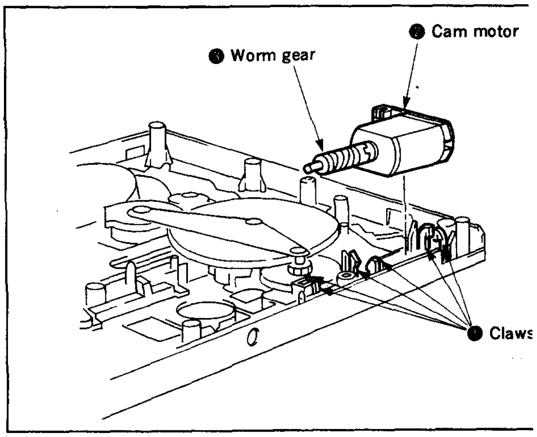

❷ Cam motor
❸ Worm gear
❶ Claws

Fig. 3-35.

3-30. CAM GEAR (Fig. 3-36)

1) Remove the three washers 2 ❶, then pull out the c gear holder ❷.
2) Pull out the cam gear ❸.

[Precautions on remounting]

○ Match up the right loading gear ass'y, the tension reg tor arm, the S take-up arm, the work wheel, the brake a and the mode slide plate with respective holes ❹ to ❾ the chassis in that order.

○ Match up the hole ❿ on the mode slide plate with the h ❿ in cam gear ❸.

○ Apply 1/2 drop of lubricant to the shaft ⓫.

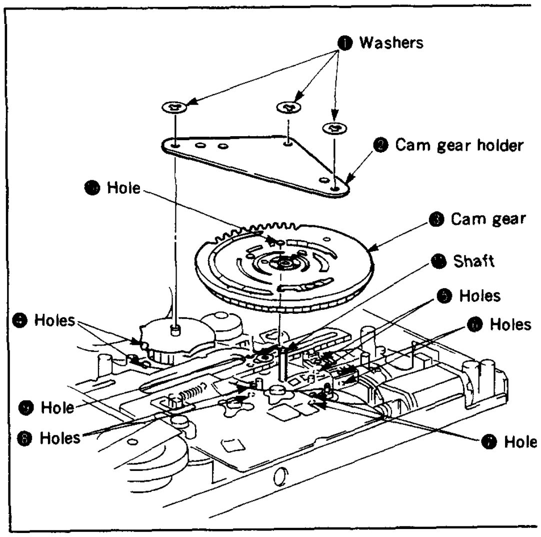

❶ Washers
❷ Cam gear holder
❿ Hole
❸ Cam gear
⓫ Shaft
❺ Holes
❹ Holes
❻ Holes
❾ Hole
❽ Holes
❼ Hole

Fig. 3-36.

3-31. TENSION REGULATOR ARM, S TAKE-UP ARM (Fig. 3-37)

1) Remove the cam gear. (Refer to 3-30)
2) Disengage the claw ❶, then remove the tension regulator arm ❷.
3) Remove the end of the spring ❸ from the S take-up arm ❹.
4) Disengage the claw ❺, then pull out S take-up arm ❹.

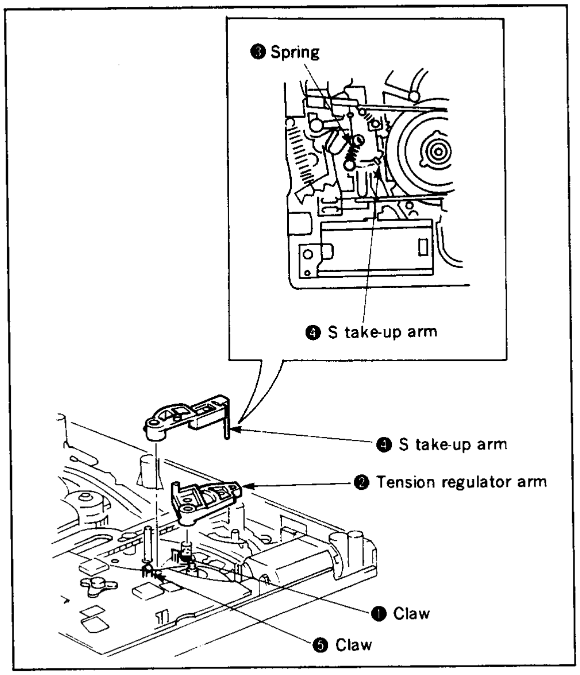

❸ Spring
❹ S take-up arm
❹ S take-up arm
❷ Tension regulator arm
❶ Claw
❺ Claw

Fig. 3-37.

3-32. MODE SLIDE PLATE, RVS RELAY GEAR (Fig. 3-38)

1) Remove the RKB cam gear. (Refer to 3-25.)
2) Remove the cam gear. (Refer to 3-30.)
3) Remove the two washers 2 ❶.
4) Turn the CAP brake ❷ in the direction of the arrow, then pull out mode slide plate ❸.
5) Pull out the RVS relay gear ❹.

[Precautions on remounting]

- ○ Match up the hole ❺ on the RVS relay gear ❹ with hole ❺ in the chassis.
- ○ Match up the holes ❻ on the mode slide plate ❸ with holes ❻ in the chassis.
- ○ Apply 1/2 drop of lubricant to the shaft ❼.

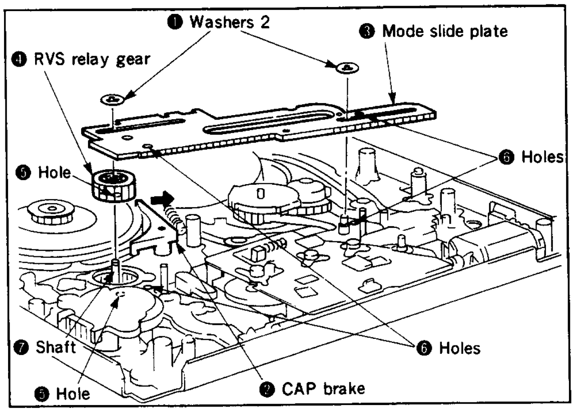

❶ Washers 2
❸ Mode slide plate
❹ RVS relay gear
❻ Holes
❺ Hole
❼ Shaft
❻ Holes
❺ Hole
❷ CAP brake

Fig. 3-38.

3-33. BRAKE ARM, BRAKE SLIDE PLATE (Fig. 3-39)

1) Remove the sub-chassis. (Refer to 3-26.)
2) Remove the cam gear. (Refer to 3-30.)
3) Disengage the claw ❶, then pull out the brake arm ❷.
4) Disengage the two claws ❸, then pull out the brake slide plate ❹.

[Precautions on remounting]

- ○ Insert the shaft ❺ into hole ❻.

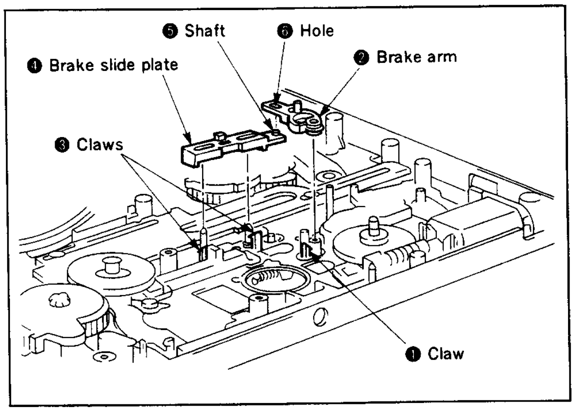

❺ Shaft
❻ Hole
❹ Brake slide plate
❷ Brake arm
❸ Claws
❶ Claw

Fig. 3-39.

MC-Service

3-34. RIGHT SHUTTLE, RIGHT LOADING GEAR ASSY'S (Fig. 3-40)

1) Remove the mode slide plate. (Refer to 3-32.)
2) Remove the plastic slider ❶, then pull out the right shuttle ass'y ❷.
3) Pull out the right loading gear ass'y ❸.

[Precautions on remounting]

○ Match up the ▲ mark on the right loading gear ass'y ❸ with the ▲ mark on the left loading gear ass'y ❹ as shown in Fig. A below.
○ Apply 1/2 drop of lubricant to the shaft ❺.
○ Do not hold on to the arm when pressing on the right loading gear ❸.
○ Clean the section of the right shuttle ass'y ❷ where the tape is attached.

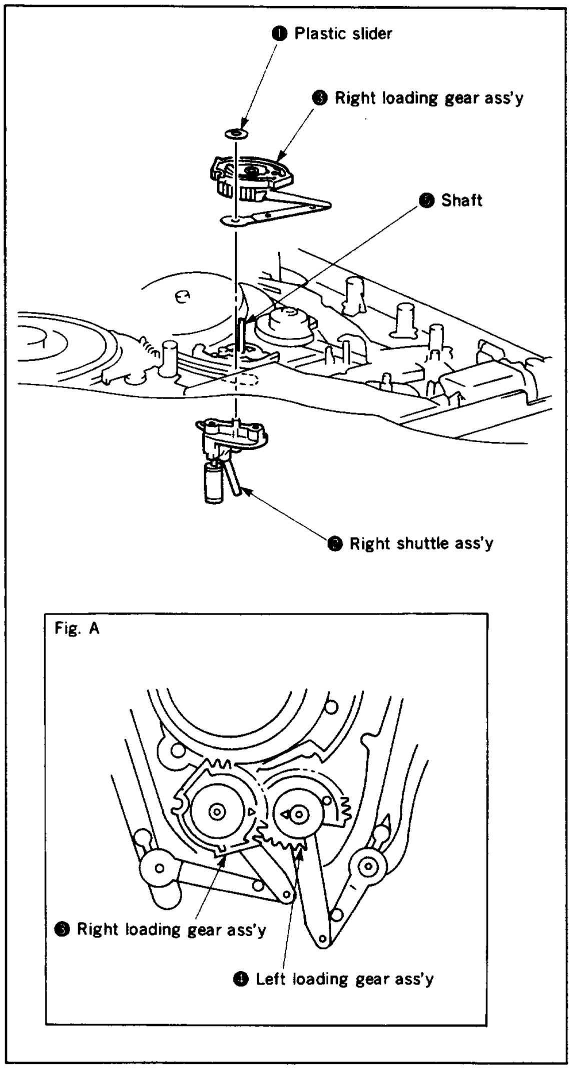

❶ Plastic slider
❸ Right loading gear ass'y
❺ Shaft
❷ Right shuttle ass'y
Fig. A
❸ Right loading gear ass'y
❹ Left loading gear ass'y

Fig. 3-40.

3-35. LEFT SHUTTLE ASS'Y, LEFT LOADING GEAR ASS'Y (Fig. 3-41)

1) Remove the right shuttle ass'y and right loading ge ass'y. (Refer to 3-34.)
2) Remove the plastic slider ❶, then pull out the left shut ass'y ❷.
3) Remove washer 2 ❸, then pull out the left loading ge ass'y ❹.

[Precautions on remounting]

○ Apply 1/2 drop of lubricant to shaft ❺.
○ The tension regulator arm ass'y ❻ and left shuttle ass'y must be positioned as shown in Fig. A below.
○ Do not hold on to the arm of the left loading gear ass'y when the left loading gear ass'y ❹ is pressed.
○ Clean the section of the felt shuttle ass'y ❷ where the t is attached.

[Adjustments after replacement]

○ Perform tape path adjustments as described in 4-1.

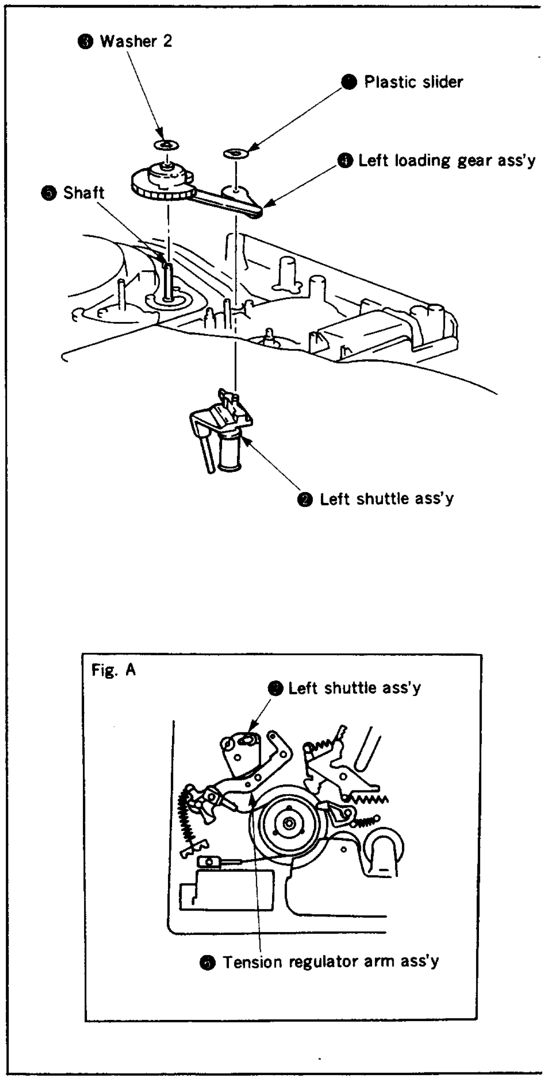

❸ Washer 2
❶ Plastic slider
❹ Left loading gear ass'y
❺ Shaft
❷ Left shuttle ass'y
Fig. A
❷ Left shuttle ass'y
❻ Tension regulator arm ass'y

Fig. 3-41.

3-36. C-ROLLER ARM ASS'Y, C-ROLLER RELEASE LEVER (Fig. 3-42)

1) Disengage the claw ❶, then pull out the C-roller arm ass'y ❷.
2) Unhook the end of the spring ❸ from the chassis.
3) Disengage the two claws ❹, then pull out the C-roller release lever ❺.

[Precautions on remounting]

- Mount C-roller arm ass'y ❷ so that the hole ❻ on the C-roller arm ass'y ❷ fits into the boss ❼ on the C-roller release lever ❺.

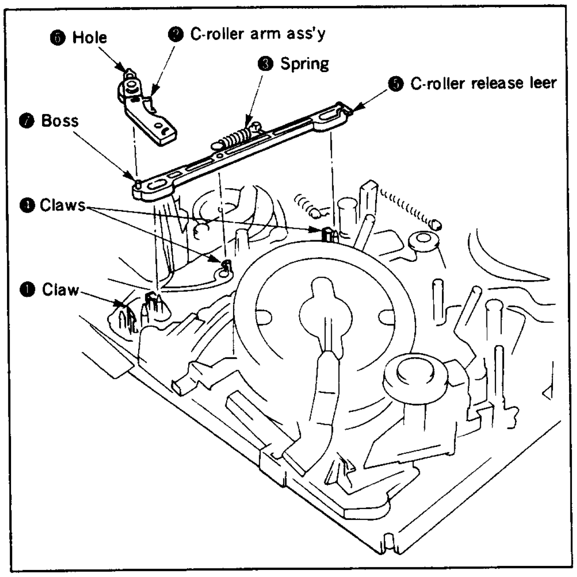

❻ Hole
❷ C-roller arm ass'y
❸ Spring
❺ C-roller release leer
❼ Boss
❹ Claws
❶ Claw

Fig. 3-42.

MC-Service

4. ADJUSTMENT

4-1. TAPE PATH ADJUSTMENT

The "Tape path" refers to the route of the tape from the supply reel disk to the take-up reel disc via the video heads. Each component part of the tape transport system, particularly the surface of parts which make direct contact with the tape must always be kept clean, free of dust, oil, scratches and so forth.

The tape path system is factory preadjusted. when parts of the tape transport system are replaced, be sure to make the required adjustments as precisely as possible in order to ensure stable tape transport.

4-1-1. Tension regulator position/tension adjustment (Fig. 4-1.)

Purpose: Stabilizes contact of the video head and the tape to maintain the tension of the tape so that it feeds at a constant level.

- **Position adjustment**

Mode	Threading is completed without a cassette loaded. (Refer to section 1-2.)
Adjustment locations	Tension band holder

[Adjustment method]

1) Allow the unit to go through the threading procedure without a cassette loaded.
2) Set the VTR unit to playback, then turn the tension band adjuster lever so that the gap between guide No. 0 and tension arm is within 4.5±0.4mm. *(Set the unit to playback without a cassette loaded.)
3) After adjustment, go through the loading procedure once more without a cassette loaded, then check the position of the tension arm.

- **Tension adjustment**

Mode	Playback
Measuring instrument/tool	Torque cassette
Adjustment locations	Position for hooking the tension sprin
Specification	28 to 34 g•cm

[Adjustment method]

1) Playback the torque cassette.
2) Check that the center value deviation reading on torque cassette meets with the standards.
3) When the reading is higher than the standards: M the spring toward direction Ⓐ.
When the reading is less than the standards: Move spring toward direction Ⓑ.

Note: Move the spring to the tension spring hook posit and recheck the tension arm position. If the position is misaligned, adjust the position and tens of the tension arm.

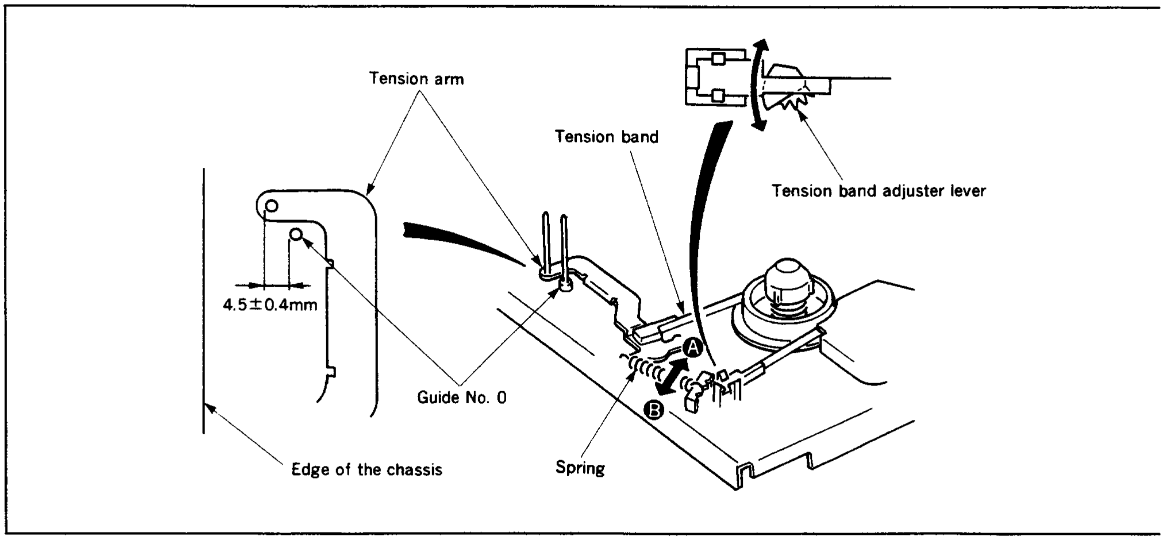


Fig. 4-1.

4-1-2. Height adjustment of the guide roller No. 2 (Fig. 4-2)

Mode	Playback
Tool	Blank tape
Adjustment locations	Guide roller height adjuster screw

[Adjustment method]

1) Load a new tape in the unit, then play it back.
2) Make sure that the lower flange of guide roller No. 2 does not curl up.
3) When the tape curls up: Turn the guide roller adjuster screw clockwise.
When the tape does not fit into the lower flange: Turn the guide roller adjuster screw counter-clockwise.
4) After the above check, separate the tension arm from the tape, then re-attach it slowly. At this time, check if the tape curls up at the lower flange of the guide roller No. 2 and if the curl disappears within 2 seconds.
5) If curl does not disappear in two seconds: Turn the adjuster screw clockwise.
If the tape does not curl up: Turn the adjuster screw counter-clockwise.

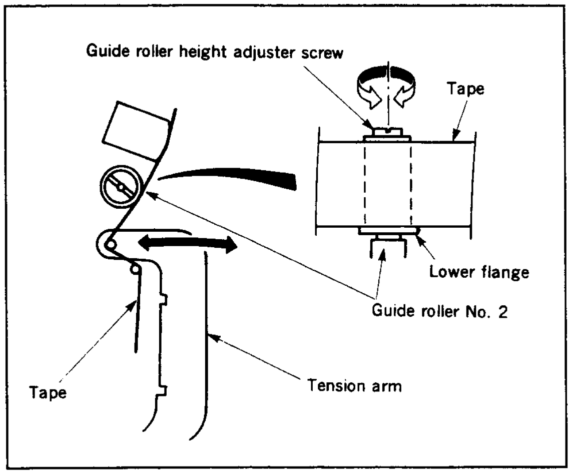


Fig. 4-2.

4-1-3. Height adjustment of guide roller No. 7 and the RVS arm (Fig. 4-3.)

Mode	Playback
Tool	Blank tape
Adjustment locations	Height adjuster nut

[Adjustment method]

1) Load the tape into the VTR and play it back, then adjust the height of the guide roller No. 7 so that the tape runs along the lower flange of guide roller No. 7.
2) If the guide roller is too low: Turn the height adjuster nut counter-clockwise.
If the guide roller is too high: Turn the height adjuster nut clockwise.
3) Run the tape in REV, then adjust the height of the RVS arm so that the tape runs along guide roller No. 7.
4) If the tape gets caught in the upper flange of guide roller No. 7: Turn the RVS arm height adjuster nut clockwise.
5) If the tape catches on the lower flange of guide roller No. 7 : Turn the RVS arm height adjuster nut counter-clockwise.

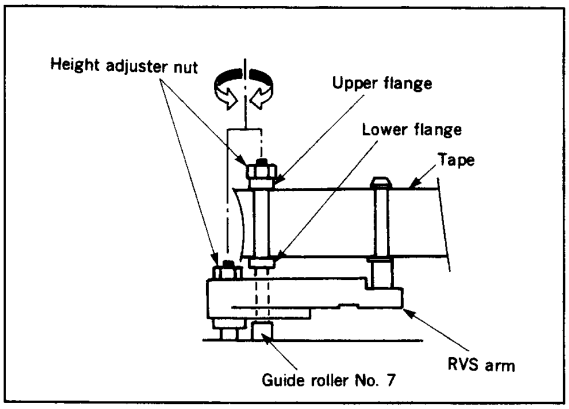


Fig. 4-3.

MC-Service

4-1-4. Height adjustment of guide rollers No. 3 and No. 6 (Fig. 4-4)

Mode	Playback
Signal	Hi-Fi alignment tape (Hi-Fi 400Hz)
Measuring instrument	Oscilloscope
Measuring point	CH-1 : Connector PB RF pin for RF PC board check. CH-2 : Connector RF SW P pin for RF PC board check.
Adjustment locations	Guide roller height adjuster screw.

[Adjustment method]

1) Tracking (playback) : Turn off the auto tracking, then press the tracking buttons ▽ and △ simultaneously to set the tracking at the center position.
(If adjustment is made after the drum is replaced, the tracking must be set at the max. Rf output position.)
2) Height adjuster screw: Even out the RF output waveforms.
3) Press the tracking buttons (playback), ▽ and △ alternately.
4) Check that RF output drops the same amount at the front and rear edges.

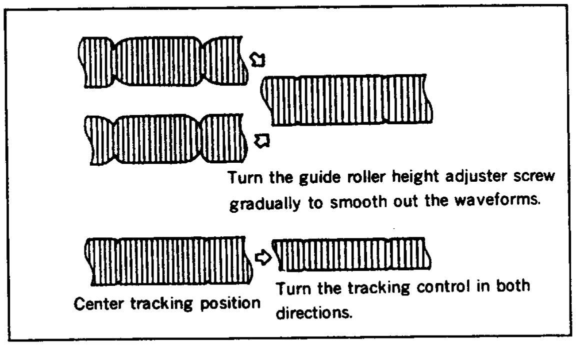

Turn the guide roller height adjuster screw gradually to smooth out the waveforms.
Center tracking position
Turn the tracking control in both directions.

Fig. 4-4.

4-1-5. ACE head ass'y adjustment (rough adjustment) (Figs. 4-5 and 4-6)

Purpose : Allows the tape to make even contact with t head for recording and playback of the specifi track.

Mode	Playback
Tool	Blank tape
Adjustment locations	Height adjuster nut, tilt adjuster screw

[Adjustment method]

1) Mount the ACE head ass'y. At this time, adjust the heig so that the height of guide flange No. 7 matches the le of the lower edge of the control head.
2) Remove the adjustment tool and load a new tape, then the unit for playback.
3) Check that the tape does not curl or raise up noticea near the ACE head.
4) If the yape curls up or rarises noticeably, readjust the adjuster screw, the azimuth adjuster screw and the heig adjuster nut.
(The height of the ACE head should be adjusted so t the lower edge of the tape is approx. 0.1 to 0.15 mm fr the control head.)
5) Perform precision adjustment.

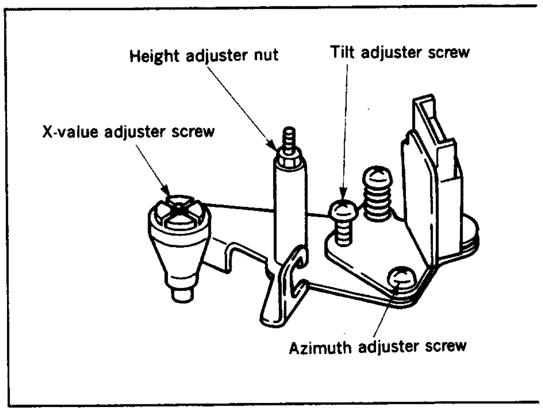

Height adjuster nut
Tilt adjuster screw
X-value adjuster screw
Azimuth adjuster screw

Fig. 4-5.

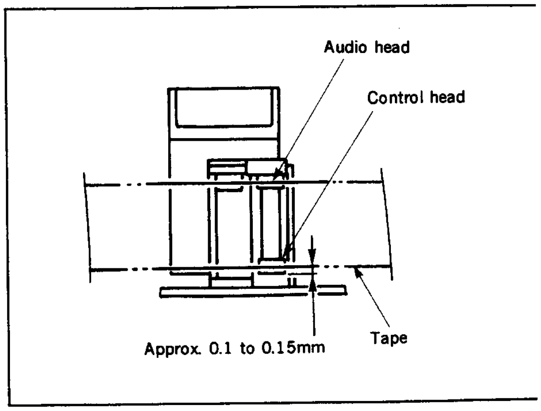

Audio head
Control head
Approx. 0.1 to 0.15mm
Tape

Fig. 4-6.

4-1-6. ACE head assembly adjustment (precision adjustment)

Mode	Playback
Signal	Alignment tape (JVC-MH-1 1KHz)
Measuring instrument	Oscilloscope
Measuring point	Audio output terminal
Adjustment locations	Azimuth adjuster screw Height adjuster nut Tilt adjuster screw

[Adjustment method]

1) Adjust the tilt adjuster screw in the FWD or REV mode so that the lower flange of guide No. 7 does not curl up or raise.
2) Alternately adjust the azimuth adjuster screw, the height adjuster nut, and the tilt adjuster screw to maintain even audio output at maximum with minimum deviation.

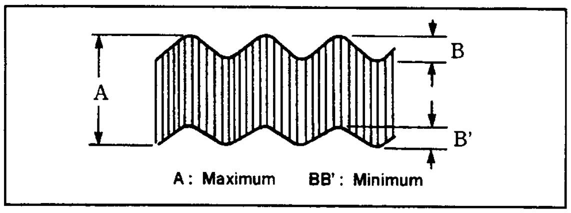

A
B
B'
A : Maximum BB' : Minimum

Fig. 4-7.

4-1-7. X-value adjustment

Purpose : To obtain compatibility with other VTR.

Precaution : Be sure to perform the preset tracking adjustment before perform this adjustment. (Refer to the Service Guide.)
Turn off the auto tracking and set the VTR for manual tracking mode.

Mode	Playbadk
Signal	Hi-Fi alignment tape (Hi-Fi 400Hz), alignment tape (JVC-MH-1)
Measuring instrument	Oscilloscope
Measuring point	CH-1 : Connector PB RF pin for RF PC board check. CH-2 : Connector RF SW P pin for RF PC board check. (Check with the CHA head)
Adjustment locations	X-value adjuster screw

[Adjustment method]

- **Adjustment by Hi-Fi alignment tape**

  When the tracking is set at the center position (by pressing the ▽ and △ keys simultaneously), adjust the RF output to maximum.

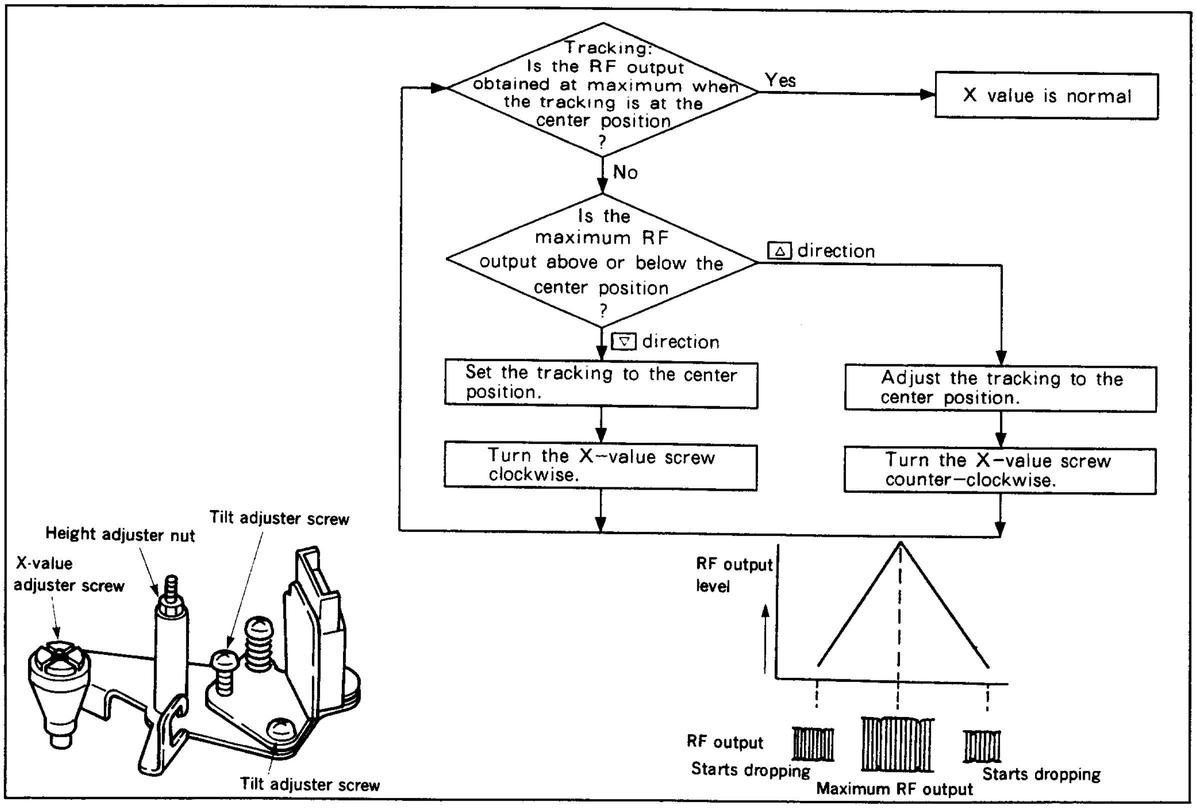

Tracking:
Is the RF output obtained at maximum when the tracking is at the center position ?
Yes
X value is normal
No
Is the maximum RF output above or below the center position ?
△ direction
▽ direction
Set the tracking to the center position.
Turn the X-value screw clockwise.
Adjust the tracking to the center position.
Turn the X-value screw counter-clockwise.
Height adjuster nut
Tilt adjuster screw
X-value adjuster screw
Tilt adjuster screw
RF output level
RF output
Starts dropping
Maximum RF output
Starts dropping

Fig. 4-8.

MC-Service

- **Adjustment by Alignment tape (JVC-MH-1)**
  Adjust the X-value adjuster screw so that maximum RF output is obtained and also that the RF output drops the same position on pressing the respective ▽ and buttons while the tracking is set at the center positio

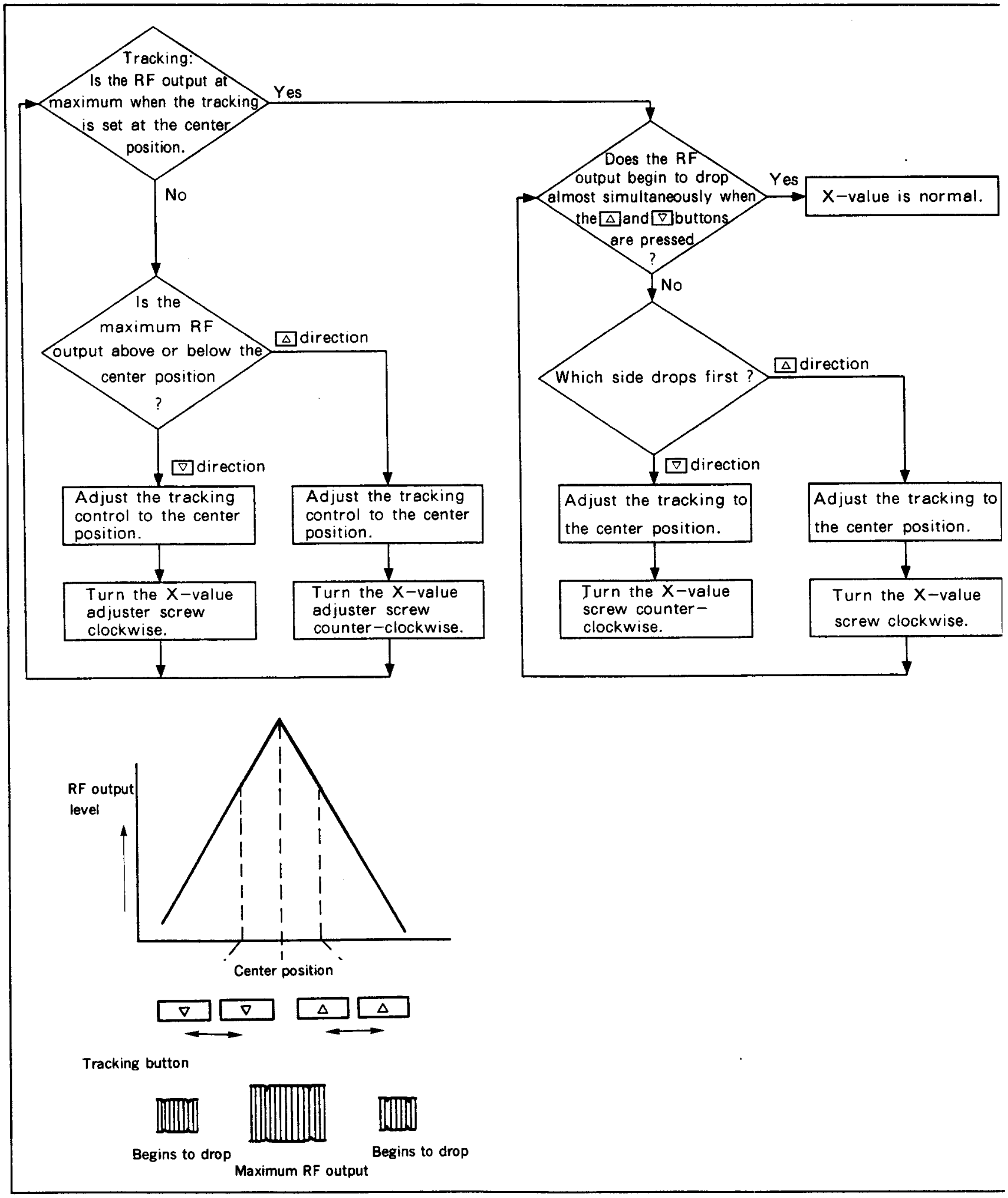

Tracking: Is the RF output at maximum when the tracking is set at the center position.
Yes
No
Is the maximum RF output above or below the center position ?
△ direction
▽ direction
Adjust the tracking control to the center position.
Turn the X-value adjuster screw clockwise.
Adjust the tracking control to the center position.
Turn the X-value adjuster screw counter-clockwise.
Does the RF output begin to drop almost simultaneously when the △ and ▽ buttons are pressed ?
Yes
X-value is normal.
No
Which side drops first ?
△ direction
▽ direction
Adjust the tracking to the center position.
Turn the X-value screw counter-clockwise.
Adjust the tracking to the center position.
Turn the X-value screw clockwise.
RF output level
Center position
▽
▽
△
△
Tracking button
Begins to drop
Maximum RF output
Begins to drop

Fig. 4-9.

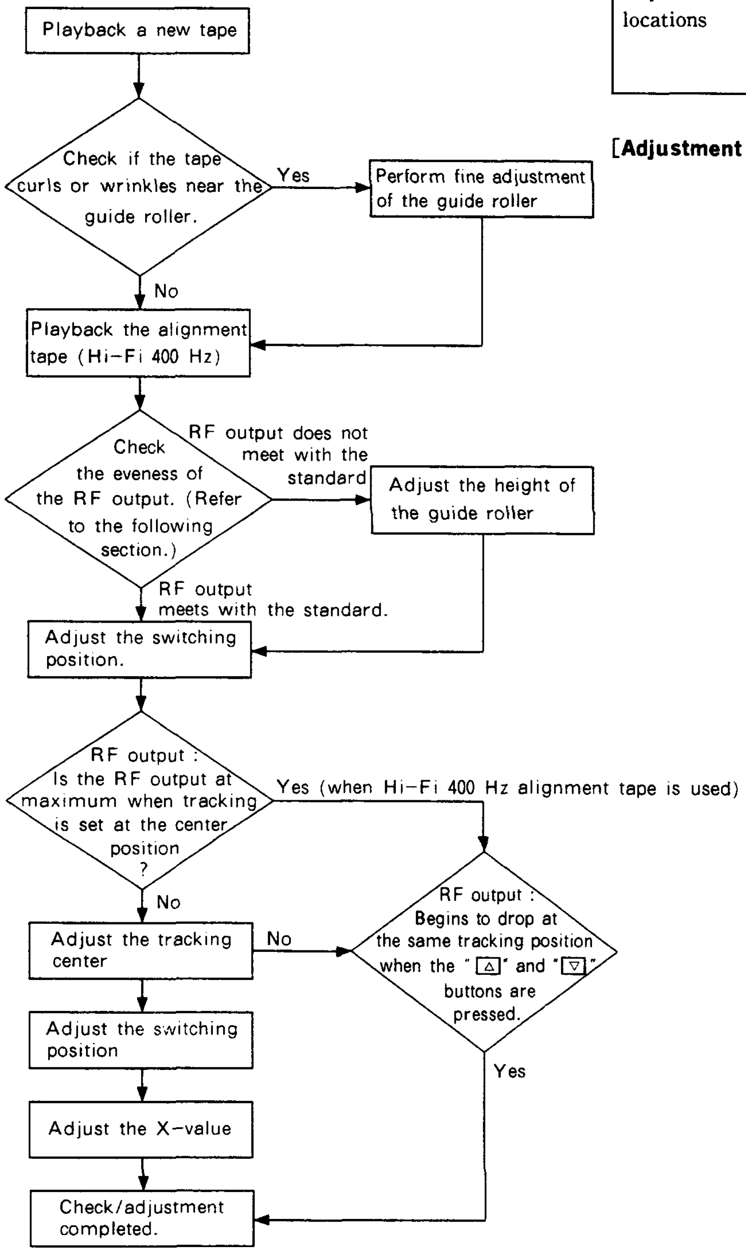
4-1-8. Adjustments after replacing the drum (video head)

Purpose : Co-relative height, X-value and other factors of the drum will deviate from those of the guide roller. If the drum is replaced properly, these deviations are extremely small.

Precaution : Turn off the auto tracking and set the manual tracking mode.

Mode	Playback
Signal	Alignment tape (JVC-MH-1), blank tape
Measuring instrument	Oscilloscope
Measuring point	CH-1 : Connector PB RF pin for RF PC board check. CH-2 : Connector RF SW P pin for RF PC board check.
Adjustment locations	Guide roller (refer to 4-1-5.) Switching position, Tracking preset, SP delay mono-multi, X-value (refer to 4-1-8) } (Refer to the Service Guide)

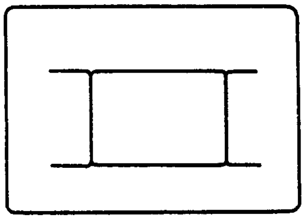
[Adjustment method]


Playback a new tape
Check if the tape curls or wrinkles near the guide roller.
Yes
Perform fine adjustment of the guide roller
No
Playback the alignment tape (Hi-Fi 400 Hz)
Check the eveness of the RF output. (Refer to the following section.)
RF output does not meet with the standard
Adjust the height of the guide roller
RF output meets with the standard.
Adjust the switching position.
RF output : Is the RF output at maximum when tracking is set at the center position ?
Yes (when Hi-Fi 400 Hz alignment tape is used)
No
Adjust the tracking center
No
RF output : Begins to drop at the same tracking position when the "△" and "▽" buttons are pressed.
Yes
Adjust the switching position
Adjust the X-value
Check/adjustment completed.

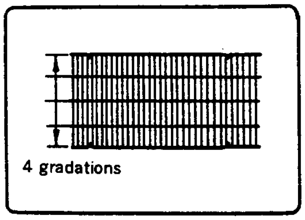
MC-Service

[Checking the eveness and fluctuation of the RF output]

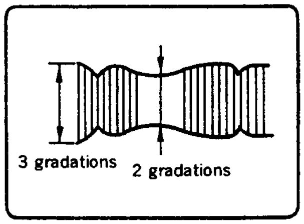
1) Set the RF output to the maximum level using the tracking buttons.



2) Perform fine adjustment of the voltage level range of the oscilloscope, then adjust the RF output deviation to within 4 gradations.



3) Press the tracking buttons and adjust the maximum amplitude of the RF output to within 3 gradations.
4) At this time, check if the minimum amplitude is more than 2 gradations.



5) Check that the RF output fluctuation between minimum and maximum levels is within 13%.

4-1-9. Checking the tension and torque

Purpose: To check that the tension, torque and compression force of the tape take-up section and mobile sections to ensure smooth tape run and achieve standard VTR performance.
If the tape transport is not smooth or problems occur in relation to the tape transport speed, perform the following check.

Mode	Each operation mode without loading a cassette tape. (Refer to section 1-3.)
Measuring instrument	Torque gauge, Torque gauge adapter

Item	VTR operation mode	Reel to be measured	Measurement value
Main brake torque	Stop	Supply and take-up reels	170g•cm or more
Review torque	Review	Supply reel	180±30g•cm (using the torque cassette)
Take-up torque	Playback	Take-up reel	80 to 140g•cm (using torque cassette)
Back tension torque	Rewind	Take-up reel	4 to 25 g•cm

[Check method]

Measure the torque using the torque gauge and torque gauge adaptor with the torque gauge fixed.

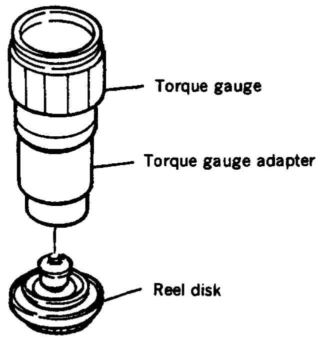


Fig. 4-13.

MC-Service